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A COMPILATION OF ELECTRONIC ENERGY EIGENVALUES AND DENSITIES OF--ETC(U)
AUG 82 C S WANG, B M KLEIN
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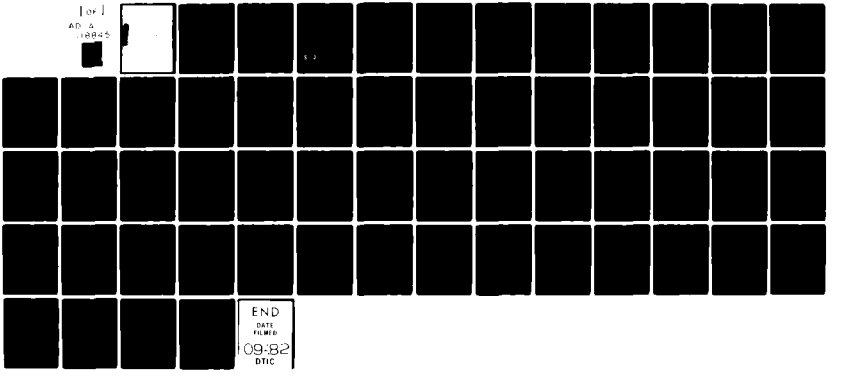

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We present a tabulation of energy eigenvalues and densities of states for the semiconductors, Si, Ge, GaP, GaAs, ZnS and ZnSe. These theoretical results follow from self-consistent linear combination of Gaussian orbitals calculations for these materials.

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

A COMPILATION OF ELECTRONIC ENERGY EIGENVALUES AND DENSITIES OF STATES OF Si, Ge, GaP, GaAs, ZnS, and ZnSe

The authors have done first-principles electronic structure calculations of Si, Ge, GaP, GaAs, ZnS, and ZnSe using the self-consistent linear combination of Gaussian orbitals method. The resulting energy bands, charge densities, effective masses, and optical properties have been discussed in a series of papers.[1-3] In this report we present a tabulation of energy eigenvalues and densities of states for these materials which are useful for those workers who want to do additional studies.

The tables are organized as follows:

Table I	Si	$E(\vec{k})$
Table II	Si	N(E)
Table III	Ge	$E(\vec{k})$
Table IV	Ge	N(E)
Table V	GaP	$E(\vec{k})$
Table VI	GaP	N(E)
Table VII	GaAs	$E(\vec{k})$
Table VIII	GaAs	N(E)
Table IX	ZnS	$E(\vec{k})$
Table X	ZnS	N(E)
Table XI	ZnSe	$E(\vec{k})$
Table XII	ZnSe	N(E)

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Where $E(\vec{k})$ are the energy eigenvalues and N(E) is the density of states.

Figures 1-6 are pictorial representations of the results for Si, Ge, GaP, GaAs, ZnS and ZnSe, respectively.

The reader should refer to Refs. 1-3 for additional details regarding the computational method and a discussion of the results.

ACKNOWLEDGMENT

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1. C.S. Wang and B.M. Klein, Phys. Rev. B24, 3393 (1981).

2. C.S. Wang and B.M. Klein, Phys. Rev. B24, 3417 (1981).

3. C.S. Wang and B.M. Klein, in Electron Distributions and the Chemical Bond, P. Coppens and M.B. Hall, editors (Plenum Press, 1982).

TABLE I.

Energy eigenvalues for the first 8 bands of Si. The first column gives the value of $\vec{k}=\frac{4a}{\pi}(k_x, k_y, k_z)$, where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.20	0.00	0.00	0.00	2.66	2.66	2.66	3.05
(1 0 0)	-12.14	-0.45	-0.31	-0.31	2.49	3.03	3.03	3.48
(1 1 0)	-12.07	-1.15	-0.60	-0.08	2.81	2.87	2.93	4.11
(1 1 1)	-12.00	-1.73	-0.34	-0.34	2.50	3.12	3.12	4.52
(2 0 0)	-11.93	-1.42	-0.92	-0.92	2.10	3.87	3.87	4.20
(2 1 0)	-11.86	-2.03	-1.20	-0.49	2.48	3.29	3.74	4.89
(2 1 1)	-11.80	-2.57	-0.90	-0.62	2.56	3.06	3.83	5.25
(2 2 0)	-11.66	-2.86	-1.78	-0.36	3.03	3.26	3.52	5.56
(2 2 1)	-11.60	-3.36	-1.32	-0.51	2.48	3.39	3.78	5.93
(2 2 2)	-11.40	-4.13	-0.89	-0.89	2.00	3.73	3.73	6.74
(3 0 0)	-11.59	-2.52	-1.54	-1.54	1.64	4.21	4.90	4.90
(3 1 0)	-11.53	-2.97	-1.82	-1.20	2.03	3.96	4.80	4.93
(3 1 1)	-11.46	-3.41	-1.48	-1.36	2.25	3.70	4.71	5.12
(3 2 0)	-11.33	-3.69	-2.39	-0.83	2.95	3.38	4.52	5.32
(3 2 1)	-11.27	-4.14	-1.93	-0.94	2.66	3.40	4.43	5.72
(3 2 2)	-11.08	-4.87	-1.35	-1.19	2.17	3.50	4.21	6.61
(3 3 0)	-11.01	-4.42	-2.98	-0.87	3.03	3.99	4.31	5.76
(3 3 1)	-10.95	-4.85	-2.50	-0.92	2.72	3.89	4.09	6.38
(3 3 2)	-10.78	-5.55	-1.72	-1.06	2.03	3.74	3.93	7.45
(3 3 3)	-10.51	-6.20	-1.27	-1.27	1.59	3.76	3.76	7.89
(4 0 0)	-11.12	-3.68	-2.09	-2.09	1.22	3.35	6.02	6.02
(4 1 0)	-11.06	-3.95	-2.36	-1.90	1.62	3.56	5.40	5.95
(4 1 1)	-11.00	-4.26	-2.17	-2.01	1.82	3.82	5.14	5.66
(4 2 0)	-10.87	-4.50	-2.92	-1.59	2.56	3.92	4.57	5.75
(4 2 1)	-10.82	-4.87	-2.54	-1.65	2.41	3.99	4.85	5.40
(4 2 2)	-10.65	-5.52	-2.00	-1.78	2.31	3.74	4.81	5.81
(4 3 0)	-10.57	-5.11	-3.50	-1.39	3.17	3.77	5.25	5.47
(4 3 1)	-10.52	-5.50	-3.05	-1.40	2.95	3.59	4.96	5.95
(4 3 2)	-10.38	-6.14	-2.25	-1.45	2.37	3.52	4.39	6.99
(4 3 3)	-10.16	-6.70	-1.63	-1.52	1.86	3.54	3.99	7.78
(4 4 0)	-10.16	-5.71	-3.99	-1.51	2.58	5.01	5.35	6.07
(4 4 1)	-10.12	-6.06	-3.53	-1.50	2.56	4.56	4.69	6.97
(4 4 2)	-10.03	-6.64	-2.67	-1.46	2.37	3.84	4.17	7.95
(4 4 3)	-9.91	-7.08	-1.81	-1.42	1.82	3.65	3.80	7.94
(4 4 4)	-9.86	-7.25	-1.40	-1.40	1.46	3.66	3.66	7.73
(5 0 0)	-10.52	-4.82	-2.53	-2.53	0.89	2.42	7.19	7.19
(5 1 0)	-10.47	-4.96	-2.79	-2.48	1.29	2.69	6.41	7.15

Table I (Cont'd)

(5 1 1)	-10.41	-5.15	-2.87	-2.43	1.44	3.07	6.17	6.65
(5 2 0)	-10.30	-5.32	-3.33	-2.35	2.24	3.43	5.05	7.03
(5 2 1)	-10.25	-5.58	-3.15	-2.30	2.02	3.99	5.01	6.42
(5 2 2)	-10.11	-6.10	-2.92	-2.16	1.98	4.66	5.15	5.52
(5 3 0)	-10.02	-5.78	-3.88	-2.17	3.49	3.68	4.54	6.87
(5 3 1)	-9.99	-6.08	-3.54	-2.12	2.99	3.72	5.21	6.28
(5 3 2)	-9.89	-6.60	-2.93	-1.98	2.45	3.77	5.19	6.45
(5 3 3)	-9.78	-7.02	-2.48	-1.77	2.23	3.68	4.45	7.60
(5 4 0)	-9.65	-6.27	-4.33	-2.03	2.55	4.93	5.84	6.70
(5 4 1)	-9.65	-6.54	-3.93	-1.99	2.59	4.29	5.89	6.83
(5 4 2)	-9.65	-6.96	-3.13	-1.87	2.62	3.58	5.04	7.85
(5 4 3)	-9.72	-7.17	-2.33	-1.66	2.26	3.44	4.27	8.13
(5 5 0)	-9.22	-6.73	-4.60	-2.14	1.89	6.28	6.74	6.92
(5 5 1)	-9.27	-6.89	-4.23	-2.09	1.96	5.63	5.82	7.23
(5 5 2)	-9.46	-7.07	-3.42	-1.97	2.13	4.51	5.08	7.39
(6 0 0)	-9.80	-5.93	-2.85	-2.85	0.70	1.67	8.39	8.39
(6 1 0)	-9.75	-5.99	-3.09	-2.91	1.09	1.97	7.51	8.37
(6 1 1)	-9.71	-6.07	-3.38	-2.74	1.16	2.45	7.36	7.68
(6 2 0)	-9.61	-6.17	-3.60	-2.98	2.04	2.79	5.99	8.32
(6 2 1)	-9.57	-6.31	-3.70	-2.74	1.69	3.49	6.00	7.54
(6 2 2)	-9.48	-6.62	-3.75	-2.43	1.62	4.67	5.82	6.35
(6 3 0)	-9.38	-6.46	-4.11	-2.95	3.32	3.94	4.47	8.20
(6 3 1)	-9.37	-6.62	-3.97	-2.78	2.71	4.44	4.84	7.49
(6 3 2)	-9.37	-6.92	-3.70	-2.35	2.18	4.56	6.00	6.25
(6 3 3)	-9.46	-7.07	-3.42	-1.97	2.13	4.51	5.08	7.39
(6 4 0)	-9.08	-6.80	-4.48	-2.80	3.01	4.78	5.40	7.31
(6 4 1)	-9.14	-6.92	-4.22	-2.69	3.07	4.03	6.26	7.30
(6 4 2)	-9.32	-7.04	-3.67	-2.37	3.14	3.33	6.17	7.54
(6 5 0)	-8.76	-7.15	-4.65	-2.62	1.90	5.71	6.42	6.92
(6 5 1)	-8.94	-7.10	-4.37	-2.56	1.97	5.49	5.88	7.15
(6 6 0)	-8.46	-7.46	-4.56	-2.66	1.31	4.33	7.75	8.10
(7 0 0)	-8.97	-7.01	-3.05	-3.05	0.65	1.12	9.51	9.51
(7 1 0)	-8.93	-7.02	-3.27	-3.18	1.03	1.46	8.63	9.45
(7 1 1)	-8.90	-7.04	-3.68	-2.93	0.98	2.07	8.56	8.69
(7 2 0)	-8.82	-7.07	-3.72	-3.42	1.98	2.34	7.04	9.01
(7 2 1)	-8.82	-7.09	-4.08	-2.98	1.48	3.19	7.07	8.53
(7 2 2)	-8.84	-7.13	-4.35	-2.60	1.39	4.42	7.03	7.22
(7 3 0)	-8.66	-7.17	-4.[illegible]	-3.58	3.26	3.55	5.41	7.65
(7 3 1)	-8.73	-7.16	-4.31	-3.19	2.51	4.52	5.46	7.66
(7 3 2)	-8.94	-7.10	-4.37	-2.56	1.97	5.49	5.88	7.15
(7 4 0)	-8.48	-7.33	-4.42	-3.54	3.77	4.70	5.10	6.07
(7 4 1)	-8.68	-7.20	-4.38	-3.30	3.75	3.97	5.95	6.25
(7 5 0)	-8.32	-7.53	-4.45	-3.33	2.44	4.44	6.41	6.67
(8 0 0)	-8.03	-8.03	-3.11	-3.11	0.79	0.79	10.11	10.11
(8 1 0)	-8.01	-8.01	-3.30	-3.30	1.15	1.15	9.57	9.57
(8 1 1)	-8.11	-7.89	-3.79	-3.00	0.92	1.95	9.26	9.37
(8 2 0)	-7.97	-7.97	-3.67	-3.67	2.07	2.07	8.15	8.15
(8 2 1)	-8.20	-7.73	-4.22	-3.06	1.41	3.09	8.03	8.27
(8 2 2)	-8.46	-7.46	-4.56	-2.66	1.31	4.33	7.75	8.10
(8 3 0)	-7.91	-7.91	-3.98	-3.98	3.33	3.33	6.49	6.49
(8 3 1)	-8.32	-7.53	-4.45	-3.33	2.44	4.44	6.41	6.67
(8 4 0)	-7.99	-7.89	-4.10	-4.10	4.55	4.55	5.12	5.12

TABLE II.

Total density of electronic states, N(E), for Si. The energy E is in eV, and N(E) is in eV^{-1} for both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.00	-11.84	0.20	-11.26	0.35
-12.98	0.00	-12.40	0.00	-11.82	0.20	-11.24	0.35
-12.96	0.00	-12.38	0.00	-11.80	0.21	-11.22	0.36
-12.94	0.00	-12.36	0.00	-11.78	0.22	-11.20	0.36
-12.92	0.00	-12.34	0.00	-11.76	0.22	-11.18	0.37
-12.90	0.00	-12.32	0.00	-11.74	0.23	-11.16	0.38
-12.88	0.00	-12.30	0.00	-11.72	0.23	-11.14	0.38
-12.86	0.00	-12.28	0.00	-11.70	0.24	-11.12	0.39
-12.84	0.00	-12.26	0.00	-11.68	0.25	-11.10	0.39
-12.82	0.00	-12.24	0.00	-11.66	0.25	-11.08	0.40
-12.80	0.00	-12.22	0.00	-11.64	0.26	-11.06	0.40
-12.78	0.00	-12.20	0.00	-11.62	0.27	-11.04	0.40
-12.76	0.00	-12.18	0.01	-11.60	0.27	-11.02	0.41
-12.74	0.00	-12.16	0.02	-11.58	0.28	-11.00	0.41
-12.72	0.00	-12.14	0.05	-11.56	0.29	-10.98	0.41
-12.70	0.00	-12.12	0.08	-11.54	0.29	-10.96	0.42
-12.68	0.00	-12.10	0.10	-11.52	0.29	-10.94	0.42
-12.66	0.00	-12.08	0.11	-11.50	0.30	-10.92	0.43
-12.64	0.00	-12.06	0.12	-11.48	0.30	-10.90	0.43
-12.62	0.00	-12.04	0.12	-11.46	0.30	-10.88	0.43
-12.60	0.00	-12.02	0.13	-11.44	0.31	-10.86	0.44
-12.58	0.00	-12.00	0.13	-11.42	0.31	-10.84	0.44
-12.56	0.00	-11.98	0.15	-11.40	0.32	-10.82	0.45
-12.54	0.00	-11.96	0.16	-11.38	0.32	-10.80	0.45
-12.52	0.00	-11.94	0.17	-11.36	0.33	-10.78	0.46
-12.50	0.00	-11.92	0.18	-11.34	0.33	-10.76	0.46
-12.48	0.00	-11.90	0.19	-11.32	0.33	-10.74	0.47
-12.46	0.00	-11.88	0.20	-11.30	0.34	-10.72	0.47
-12.44	0.00	-11.86	0.20	-11.28	0.34	-10.70	0.48

Table II (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	0.48	-9.64	0.77	-8.60	0.49	-7.56	0.22
-10.66	0.49	-9.62	0.78	-8.58	0.47	-7.54	0.23
-10.64	0.49	-9.60	0.78	-8.56	0.45	-7.52	0.24
-10.62	0.50	-9.58	0.79	-8.54	0.42	-7.50	0.25
-10.60	0.51	-9.56	0.79	-8.52	0.39	-7.48	0.27
-10.58	0.51	-9.54	0.79	-8.50	0.37	-7.46	0.28
-10.56	0.52	-9.52	0.78	-8.48	0.33	-7.44	0.29
-10.54	0.52	-9.50	0.78	-8.46	0.32	-7.42	0.31
-10.52	0.53	-9.48	0.77	-8.44	0.30	-7.40	0.33
-10.50	0.54	-9.46	0.78	-8.42	0.29	-7.38	0.34
-10.48	0.54	-9.44	0.79	-8.40	0.28	-7.36	0.36
-10.46	0.55	-9.42	0.80	-8.38	0.26	-7.34	0.38
-10.44	0.55	-9.40	0.79	-8.36	0.25	-7.32	0.42
-10.42	0.56	-9.38	0.77	-8.34	0.24	-7.30	0.47
-10.40	0.56	-9.36	0.77	-8.32	0.23	-7.28	0.52
-10.38	0.57	-9.34	0.77	-8.30	0.22	-7.26	0.56
-10.36	0.58	-9.32	0.76	-8.28	0.21	-7.24	0.60
-10.34	0.58	-9.30	0.74	-8.26	0.20	-7.22	0.63
-10.32	0.59	-9.28	0.73	-8.24	0.19	-7.20	0.66
-10.30	0.60	-9.26	0.72	-8.22	0.18	-7.18	0.65
-10.28	0.60	-9.24	0.71	-8.20	0.17	-7.16	0.61
-10.26	0.61	-9.22	0.69	-8.18	0.15	-7.14	0.81
-10.24	0.62	-9.20	0.68	-8.16	0.14	-7.12	1.14
-10.22	0.63	-9.18	0.66	-8.14	0.13	-7.10	0.95
-10.20	0.64	-9.16	0.65	-8.12	0.12	-7.08	0.85
-10.18	0.65	-9.14	0.63	-8.10	0.10	-7.06	0.90
-10.16	0.66	-9.12	0.62	-8.08	0.09	-7.04	0.96
-10.14	0.67	-9.10	0.61	-8.06	0.07	-7.02	1.06
-10.12	0.68	-9.08	0.61	-8.04	0.05	-7.00	1.20
-10.10	0.70	-9.06	0.61	-8.02	0.03	-6.98	1.34
-10.08	0.71	-9.04	0.60	-8.00	0.03	-6.96	1.50
-10.06	0.73	-9.02	0.60	-7.98	0.03	-6.94	1.61
-10.04	0.75	-9.00	0.60	-7.96	0.03	-6.92	1.69
-10.02	0.77	-8.98	0.59	-7.94	0.04	-6.90	1.65
-10.00	0.79	-8.96	0.58	-7.92	0.04	-6.88	1.55
-9.98	0.82	-8.94	0.58	-7.90	0.05	-6.86	1.46
-9.96	0.85	-8.92	0.57	-7.88	0.06	-6.84	1.37
-9.94	0.89	-8.90	0.58	-7.86	0.07	-6.82	1.30
-9.92	0.92	-8.88	0.60	-7.84	0.08	-6.80	1.22
-9.90	0.91	-8.86	0.63	-7.82	0.09	-6.78	1.16
-9.88	0.88	-8.84	0.67	-7.80	0.10	-6.76	1.10
-9.86	0.88	-8.82	0.67	-7.78	0.11	-6.74	1.05
-9.84	0.89	-8.80	0.64	-7.76	0.12	-6.72	1.00
-9.82	0.90	-8.78	0.60	-7.74	0.13	-6.70	0.95
-9.80	0.92	-8.76	0.56	-7.72	0.14	-6.68	0.92
-9.78	0.93	-8.74	0.53	-7.70	0.15	-6.66	0.88
-9.76	0.94	-8.72	0.51	-7.68	0.16	-6.64	0.85
-9.74	0.93	-8.70	0.52	-7.66	0.17	-6.62	0.83
-9.72	0.91	-8.68	0.54	-7.64	0.18	-6.60	0.81
-9.70	0.87	-8.66	0.54	-7.62	0.19	-6.58	0.79
-9.68	0.84	-8.64	0.52	-7.60	0.20	-6.56	0.77
-9.66	0.80	-8.62	0.51	-7.58	0.21	-6.54	0.75

Table II (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	0.73	-5.48	0.35	-4.44	0.85	-3.40	1.15
-6.50	0.72	-5.46	0.34	-4.42	0.98	-3.38	1.16
-6.48	0.70	-5.44	0.34	-4.40	1.13	-3.36	1.17
-6.46	0.69	-5.42	0.34	-4.38	1.21	-3.34	1.18
-6.44	0.68	-5.40	0.33	-4.36	1.23	-3.32	1.18
-6.42	0.66	-5.38	0.33	-4.34	1.24	-3.30	1.19
-6.40	0.65	-5.36	0.32	-4.32	1.24	-3.28	1.20
-6.38	0.64	-5.34	0.32	-4.30	1.24	-3.26	1.21
-6.36	0.63	-5.32	0.32	-4.28	1.24	-3.24	1.22
-6.34	0.61	-5.30	0.31	-4.26	1.24	-3.22	1.24
-6.32	0.60	-5.28	0.31	-4.24	1.23	-3.20	1.26
-6.30	0.59	-5.26	0.31	-4.22	1.23	-3.18	1.29
-6.28	0.58	-5.24	0.30	-4.20	1.21	-3.16	1.33
-6.26	0.57	-5.22	0.30	-4.18	1.18	-3.14	1.36
-6.24	0.56	-5.20	0.30	-4.16	1.15	-3.12	1.40
-6.22	0.55	-5.18	0.29	-4.14	1.12	-3.10	1.44
-6.20	0.54	-5.16	0.29	-4.12	1.09	-3.08	1.47
-6.18	0.54	-5.14	0.29	-4.10	1.07	-3.06	1.50
-6.16	0.53	-5.12	0.28	-4.08	1.05	-3.04	1.51
-6.14	0.52	-5.10	0.28	-4.06	1.03	-3.02	1.51
-6.12	0.51	-5.08	0.28	-4.04	1.02	-3.00	1.49
-6.10	0.50	-5.06	0.27	-4.02	1.01	-2.98	1.47
-6.08	0.50	-5.04	0.27	-4.00	1.01	-2.96	1.47
-6.06	0.49	-5.02	0.27	-3.98	1.01	-2.94	1.48
-6.04	0.48	-5.00	0.26	-3.96	1.01	-2.92	1.49
-6.02	0.48	-4.98	0.26	-3.94	1.01	-2.90	1.50
-6.00	0.47	-4.96	0.26	-3.92	1.01	-2.88	1.49
-5.98	0.46	-4.94	0.26	-3.90	1.01	-2.86	1.48
-5.96	0.46	-4.92	0.25	-3.88	1.01	-2.84	1.45
-5.94	0.45	-4.90	0.25	-3.86	1.01	-2.82	1.43
-5.92	0.45	-4.88	0.25	-3.84	1.01	-2.80	1.40
-5.90	0.44	-4.86	0.24	-3.82	1.02	-2.78	1.38
-5.88	0.44	-4.84	0.24	-3.80	1.02	-2.76	1.36
-5.86	0.43	-4.82	0.24	-3.78	1.02	-2.74	1.36
-5.84	0.43	-4.80	0.24	-3.76	1.02	-2.72	1.38
-5.82	0.42	-4.78	0.24	-3.74	1.02	-2.70	1.40
-5.80	0.42	-4.76	0.23	-3.72	1.02	-2.68	1.41
-5.78	0.41	-4.74	0.23	-3.70	1.02	-2.66	1.42
-5.76	0.41	-4.72	0.23	-3.68	1.02	-2.64	1.42
-5.74	0.40	-4.70	0.23	-3.66	1.02	-2.62	1.42
-5.72	0.40	-4.68	0.22	-3.64	1.02	-2.60	1.41
-5.70	0.39	-4.66	0.22	-3.62	1.01	-2.58	1.41
-5.68	0.39	-4.64	0.22	-3.60	1.01	-2.56	1.40
-5.66	0.38	-4.62	0.25	-3.58	1.02	-2.54	1.39
-5.64	0.38	-4.60	0.31	-3.56	1.03	-2.52	1.38
-5.62	0.38	-4.58	0.37	-3.54	1.08	-2.50	1.36
-5.60	0.37	-4.56	0.42	-3.52	1.09	-2.48	1.34
-5.58	0.37	-4.54	0.46	-3.50	1.10	-2.46	1.32
-5.56	0.36	-4.52	0.51	-3.48	1.11	-2.44	1.31
-5.54	0.36	-4.50	0.55	-3.46	1.12	-2.42	1.30
-5.52	0.36	-4.48	0.61	-3.44	1.13	-2.40	1.29
-5.50	0.35	-4.46	0.70	-3.42	1.14	-2.38	1.29

Table II (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.30	-1.32	0.82	-0.28	0.14	0.76	0.06
-2.34	1.30	-1.30	0.79	-0.26	0.13	0.78	0.08
-2.32	1.31	-1.28	0.77	-0.24	0.12	0.80	0.10
-2.30	1.32	-1.26	0.75	-0.22	0.10	0.82	0.13
-2.28	1.32	-1.24	0.73	-0.20	0.09	0.84	0.15
-2.26	1.32	-1.22	0.71	-0.18	0.08	0.86	0.17
-2.24	1.32	-1.20	0.69	-0.16	0.06	0.88	0.19
-2.22	1.31	-1.18	0.67	-0.14	0.05	0.90	0.21
-2.20	1.31	-1.16	0.65	-0.12	0.04	0.92	0.23
-2.18	1.30	-1.14	0.64	-0.10	0.03	0.94	0.25
-2.16	1.30	-1.12	0.62	-0.08	0.02	0.96	0.26
-2.14	1.29	-1.10	0.60	-0.06	0.01	0.98	0.28
-2.12	1.28	-1.08	0.58	-0.04	0.01	1.00	0.29
-2.10	1.27	-1.06	0.56	-0.02	0.00	1.02	0.30
-2.08	1.26	-1.04	0.55	0.00	0.00	1.04	0.31
-2.06	1.25	-1.02	0.53	0.02	0.00	1.06	0.32
-2.04	1.25	-1.00	0.51	0.04	0.00	1.08	0.33
-2.02	1.24	-0.98	0.50	0.06	0.00	1.10	0.34
-2.00	1.23	-0.96	0.48	0.08	0.00	1.12	0.35
-1.98	1.22	-0.94	0.47	0.10	0.00	1.14	0.36
-1.96	1.23	-0.92	0.45	0.12	0.00	1.16	0.37
-1.94	1.23	-0.90	0.44	0.14	0.00	1.18	0.38
-1.92	1.24	-0.88	0.43	0.16	0.00	1.20	0.39
-1.90	1.24	-0.86	0.42	0.18	0.00	1.22	0.40
-1.88	1.25	-0.84	0.41	0.20	0.00	1.24	0.42
-1.86	1.25	-0.82	0.40	0.22	0.00	1.26	0.43
-1.84	1.23	-0.80	0.39	0.24	0.00	1.28	0.44
-1.82	1.21	-0.78	0.38	0.26	0.00	1.30	0.45
-1.80	1.19	-0.76	0.37	0.28	0.00	1.32	0.46
-1.78	1.18	-0.74	0.36	0.30	0.00	1.34	0.47
-1.76	1.17	-0.72	0.35	0.32	0.00	1.36	0.48
-1.74	1.16	-0.70	0.34	0.34	0.00	1.38	0.49
-1.72	1.16	-0.68	0.33	0.36	0.00	1.40	0.50
-1.70	1.16	-0.66	0.32	0.38	0.00	1.42	0.51
-1.68	1.16	-0.64	0.31	0.40	0.00	1.44	0.51
-1.66	1.17	-0.62	0.30	0.42	0.00	1.46	0.52
-1.64	1.18	-0.60	0.29	0.44	0.00	1.48	0.53
-1.62	1.18	-0.58	0.28	0.46	0.00	1.50	0.55
-1.60	1.18	-0.56	0.28	0.48	0.00	1.52	0.56
-1.58	1.18	-0.54	0.27	0.50	0.00	1.54	0.57
-1.56	1.17	-0.52	0.26	0.52	0.00	1.56	0.59
-1.54	1.16	-0.50	0.26	0.54	0.00	1.58	0.61
-1.52	1.15	-0.48	0.25	0.56	0.00	1.60	0.63
-1.50	1.14	-0.46	0.24	0.58	0.00	1.62	0.65
-1.48	1.14	-0.44	0.23	0.60	0.00	1.64	0.67
-1.46	1.15	-0.42	0.23	0.62	0.00	1.66	0.69
-1.44	1.13	-0.40	0.22	0.64	0.00	1.68	0.71
-1.42	1.15	-0.38	0.21	0.66	0.00	1.70	0.73
-1.40	0.95	-0.36	0.20	0.68	0.00	1.72	0.75
-1.38	0.91	-0.34	0.19	0.70	0.01	1.74	0.77
-1.36	0.88	-0.32	0.17	0.72	0.03	1.76	0.80
-1.34	0.84	-0.30	0.16	0.74	0.04	1.78	0.82

Table II (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	0.84	2.84	1.20	3.88	1.96	4.92	1.19
1.82	0.86	2.86	1.20	3.90	1.93	4.94	1.22
1.84	0.88	2.88	1.19	3.92	1.89	4.96	1.25
1.86	0.90	2.90	1.19	3.94	1.82	4.98	1.28
1.88	0.92	2.92	1.19	3.96	1.69	5.00	1.32
1.90	0.94	2.94	1.19	3.98	1.56	5.02	1.37
1.92	0.96	2.96	1.19	4.00	1.51	5.04	1.39
1.94	0.98	2.98	1.20	4.02	1.52	5.06	1.38
1.96	1.00	3.00	1.19	4.04	1.52	5.08	1.35
1.98	1.03	3.02	1.15	4.06	1.49	5.10	1.32
2.00	1.05	3.04	1.10	4.08	1.46	5.12	1.32
2.02	1.08	3.06	1.02	4.10	1.43	5.14	1.25
2.04	1.11	3.08	0.92	4.12	1.41	5.16	1.19
2.06	1.13	3.10	0.83	4.14	1.38	5.18	1.14
2.08	1.17	3.12	0.78	4.16	1.36	5.20	1.10
2.10	1.20	3.14	0.76	4.18	1.33	5.22	1.09
2.12	1.23	3.16	0.75	4.20	1.30	5.24	1.09
2.14	1.27	3.18	0.76	4.22	1.28	5.26	1.09
2.16	1.30	3.20	0.76	4.24	1.25	5.28	1.10
2.18	1.34	3.22	0.76	4.26	1.22	5.30	1.10
2.20	1.38	3.24	0.77	4.28	1.19	5.32	1.11
2.22	1.43	3.26	0.78	4.30	1.17	5.34	1.11
2.24	1.48	3.28	0.82	4.32	1.14	5.36	1.12
2.26	1.56	3.30	0.90	4.34	1.11	5.38	1.13
2.28	1.63	3.32	0.96	4.36	1.08	5.40	1.14
2.30	1.69	3.34	0.97	4.38	1.06	5.42	1.16
2.32	1.73	3.36	0.94	4.40	1.03	5.44	1.17
2.34	1.77	3.38	0.87	4.42	1.01	5.46	1.18
2.36	1.81	3.40	0.82	4.44	0.99	5.48	1.20
2.38	1.82	3.42	0.86	4.46	0.98	5.50	1.21
2.40	1.76	3.44	0.91	4.48	0.98	5.52	1.23
2.42	1.65	3.46	1.00	4.50	0.98	5.54	1.25
2.44	1.58	3.48	1.16	4.52	0.99	5.56	1.26
2.46	1.55	3.50	1.39	4.54	1.02	5.58	1.26
2.48	1.52	3.52	1.77	4.56	1.08	5.60	1.27
2.50	1.60	3.54	2.07	4.58	1.14	5.62	1.27
2.52	1.69	3.56	2.25	4.60	1.18	5.64	1.26
2.54	1.71	3.58	2.44	4.62	1.19	5.66	1.25
2.56	1.67	3.60	2.52	4.64	1.17	5.68	1.24
2.58	1.58	3.62	2.57	4.66	1.13	5.70	1.23
2.60	1.51	3.64	2.61	4.68	1.11	5.72	1.22
2.62	1.44	3.66	2.40	4.70	1.11	5.74	1.21
2.64	1.39	3.68	2.31	4.72	1.11	5.76	1.20
2.66	1.35	3.70	2.22	4.74	1.11	5.78	1.19
2.68	1.32	3.72	2.17	4.76	1.11	5.80	1.18
2.70	1.29	3.74	2.11	4.78	1.12	5.82	1.17
2.72	1.27	3.76	2.04	4.80	1.12	5.84	1.35
2.74	1.25	3.78	2.04	4.82	1.12	5.86	1.54
2.76	1.24	3.80	2.05	4.84	1.13	5.88	1.48
2.78	1.22	3.82	2.04	4.86	1.14	5.90	1.39
2.80	1.22	3.84	2.01	4.88	1.15	5.92	1.32
2.82	1.21	3.86	1.99	4.90	1.17	5.94	1.25

Table II (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	1.18	6.98	1.16	8.00	0.99	9.02	1.28
5.98	1.11	7.00	1.17	8.02	0.97	9.04	1.32
6.00	1.03	7.02	1.18	8.04	0.95	9.06	1.35
6.02	1.01	7.04	1.19	8.06	0.94	9.08	1.36
6.04	0.98	7.06	1.19	8.08	0.93	9.10	1.36
6.06	0.96	7.08	1.19	8.10	0.93	9.12	1.36
6.08	0.94	7.10	1.19	8.12	0.93	9.14	1.37
6.10	0.92	7.12	1.18	8.14	0.94	9.16	1.38
6.12	0.89	7.14	1.17	8.16	0.94	9.18	1.39
6.14	0.87	7.16	1.16	8.18	0.95	9.20	1.40
6.16	0.85	7.18	1.13	8.20	0.97	9.22	1.41
6.18	0.82	7.20	1.10	8.22	1.02	9.24	1.42
6.20	0.80	7.22	1.05	8.24	1.05	9.26	1.43
6.22	0.78	7.24	1.04	8.26	1.06	9.28	1.44
6.24	0.77	7.26	1.04	8.28	1.04	9.30	1.44
6.26	0.76	7.28	1.05	8.30	1.01	9.32	1.44
6.28	0.79	7.30	1.06	8.32	0.99	9.34	1.44
6.30	0.82	7.32	1.07	8.34	0.97	9.36	1.44
6.32	0.84	7.34	1.09	8.36	0.96	9.38	1.44
6.34	0.85	7.36	1.11	8.38	0.96	9.40	1.44
6.36	0.85	7.38	1.13	8.40	0.98	9.42	1.44
6.38	0.84	7.40	1.16	8.42	1.00	9.44	1.45
6.40	0.82	7.42	1.19	8.44	1.03	9.46	1.46
6.42	0.79	7.44	1.23	8.46	1.06	9.48	1.45
6.44	0.77	7.46	1.30	8.48	1.06	9.50	1.43
6.46	0.77	7.48	1.29	8.50	1.07	9.52	1.39
6.48	0.77	7.50	1.27	8.52	1.07	9.54	1.34
6.50	0.78	7.52	1.26	8.54	1.07	9.56	1.32
6.52	0.78	7.54	1.26	8.56	1.07	9.58	1.30
6.54	0.79	7.56	1.24	8.58	1.07	9.60	1.29
6.56	0.80	7.58	1.22	8.60	1.07	9.62	1.28
6.58	0.80	7.60	1.19	8.62	1.07	9.64	1.28
6.60	0.81	7.62	1.17	8.64	1.07	9.66	1.28
6.62	0.82	7.64	1.15	8.66	1.07	9.68	1.29
6.64	0.82	7.66	1.15	8.68	1.07	9.70	1.28
6.66	0.83	7.68	1.13	8.70	1.07	9.72	1.29
6.68	0.84	7.70	1.12	8.72	1.07	9.74	1.30
6.70	0.85	7.72	1.11	8.74	1.07	9.76	1.31
6.72	0.86	7.74	1.11	8.76	1.08	9.78	1.32
6.74	0.87	7.76	1.12	8.78	1.08	9.80	1.32
6.76	0.89	7.78	1.15	8.80	1.09	9.82	1.32
6.78	0.91	7.80	1.19	8.82	1.10	9.84	1.32
6.80	0.94	7.82	1.22	8.84	1.11	9.86	1.32
6.82	0.97	7.84	1.24	8.86	1.12	9.88	1.32
6.84	1.00	7.86	1.23	8.88	1.13	9.90	1.32
6.86	1.03	7.88	1.20	8.90	1.13	9.92	1.32
6.88	1.05	7.90	1.16	8.92	1.14	9.94	1.32
6.90	1.08	7.92	1.12	8.94	1.16	9.96	1.31
6.92	1.10	7.94	1.09	8.96	1.18	9.98	1.31
6.94	1.12	7.96	1.06	8.98	1.20	10.00	1.29
6.96	1.14	7.98	1.02	9.00	1.24	10.02	1.28

TABLE III.

Energy eigenvalues for the first 8 bands of Ge. The first column gives the value of $\vec{k}=\frac{4a}{\pi}(k_x, k_y, k_z)$, where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.46	0.00	0.00	0.00	0.72	2.61	2.61	2.61
(1 0 0)	-12.39	-0.90	-0.28	-0.28	1.59	2.42	2.97	2.98
(1 1 0)	-12.33	-1.56	-0.56	-0.08	1.62	2.76	2.83	3.45
(1 1 1)	-12.27	-2.10	-0.32	-0.32	1.41	3.06	3.06	3.64
(2 0 0)	-12.20	-2.07	-0.86	-0.85	1.99	2.63	3.80	3.80
(2 1 0)	-12.14	-2.54	-1.13	-0.52	2.24	2.38	3.65	4.29
(2 1 1)	-12.08	-2.98	-0.84	-0.69	1.78	2.78	3.77	4.49
(2 2 0)	-11.96	-3.35	-1.71	-0.37	2.03	3.19	3.36	4.95
(2 2 1)	-11.90	-3.76	-1.31	-0.51	1.53	3.33	3.66	5.15
(2 2 2)	-11.72	-4.47	-0.86	-0.86	1.00	3.70	3.70	5.83
(3 0 0)	-11.89	-3.24	-1.46	-1.46	1.52	3.30	4.82	4.83
(3 1 0)	-11.83	-3.56	-1.74	-1.21	1.91	2.99	4.70	4.95
(3 1 1)	-11.77	-3.90	-1.45	-1.41	2.05	2.86	4.65	5.09
(3 2 0)	-11.65	-4.21	-2.30	-0.85	2.48	2.84	4.41	5.15
(3 2 1)	-11.59	-4.55	-1.92	-0.96	1.96	3.15	4.37	5.48
(3 2 2)	-11.42	-5.20	-1.30	-1.27	1.33	3.46	4.21	6.26
(3 3 0)	-11.35	-4.92	-2.88	-0.86	2.27	3.90	4.17	5.28
(3 3 1)	-11.30	-5.25	-2.49	-0.91	1.91	3.85	4.06	5.85
(3 3 2)	-11.15	-5.85	-1.74	-1.05	1.15	3.79	3.98	6.94
(3 3 3)	-10.90	-6.44	-1.25	-1.25	0.65	3.85	3.85	7.70
(4 0 0)	-11.45	-4.39	-2.00	-2.00	1.11	3.24	5.93	5.93
(4 1 0)	-11.39	-4.59	-2.27	-1.86	1.51	3.23	5.45	5.85
(4 1 1)	-11.34	-4.82	-2.19	-1.93	1.71	3.29	5.33	5.60
(4 2 0)	-11.22	-5.06	-2.81	-1.57	2.46	3.09	4.89	5.64
(4 2 1)	-11.17	-5.33	-2.53	-1.64	2.18	3.31	5.04	5.46
(4 2 2)	-11.02	-5.87	-2.11	-1.72	1.85	3.44	4.83	5.90
(4 3 0)	-10.95	-5.63	-3.37	-1.37	2.56	3.67	5.07	5.37
(4 3 1)	-10.90	-5.91	-3.02	-1.39	2.28	3.59	4.83	5.87
(4 3 2)	-10.78	-6.43	-2.30	-1.44	1.63	3.58	4.43	6.86
(4 3 3)	-10.59	-6.92	-1.70	-1.49	1.03	3.65	4.10	7.69
(4 4 0)	-10.57	-6.22	-3.83	-1.48	2.16	4.86	5.27	5.45
(4 4 1)	-10.54	-6.46	-3.48	-1.46	2.07	4.41	4.66	6.50
(4 4 2)	-10.47	-6.90	-2.71	-1.44	1.67	3.88	4.26	7.59
(4 4 3)	-10.39	-7.26	-1.86	-1.41	0.97	3.78	3.93	7.89
(4 4 4)	-10.35	-7.39	-1.40	-1.40	0.52	3.80	3.80	7.77
(5 0 0)	-10.89	-5.49	-2.44	-2.44	0.82	2.53	7.07	7.07
(5 1 0)	-10.84	-5.60	-2.69	-2.40	1.21	2.71	6.24	7.02

Table III (Cont'd)

(5 1 1)	-10.79	-5.74	-2.80	-2.35	1.39	2.99	5.99	6.57
(5 2 0)	-10.68	-5.91	-3.21	-2.27	2.16	3.18	4.99	6.90
(5 2 1)	-10.64	-6.09	-3.10	-2.22	1.93	3.62	5.04	6.36
(5 2 2)	-10.52	-6.49	-2.95	-2.09	1.81	4.02	5.43	5.53
(5 3 0)	-10.44	-6.33	-3.73	-2.10	3.16	3.40	4.59	6.72
(5 3 1)	-10.41	-6.53	-3.48	-2.06	2.66	3.55	5.07	6.31
(5 3 2)	-10.34	-6.91	-2.97	-1.92	2.04	3.64	5.13	6.46
(5 3 3)	-10.26	-7.24	-2.56	-1.73	1.63	3.65	4.55	7.47
(5 4 0)	-10.11	-6.79	-4.13	-1.98	2.28	4.79	5.44	6.52
(5 4 1)	-10.11	-6.95	-3.84	-1.94	2.26	4.19	5.58	6.73
(5 4 2)	-10.13	-7.22	-3.16	-1.82	2.06	3.65	4.99	7.58
(5 4 3)	-10.22	-7.36	-2.41	-1.62	1.50	3.60	4.35	7.98
(5 5 0)	-9.72	-7.24	-4.37	-2.08	1.74	6.07	6.20	6.40
(5 5 1)	-9.78	-7.30	-4.10	-2.04	1.78	5.21	5.75	6.95
(5 5 2)	-9.96	-7.36	-3.42	-1.92	1.83	4.23	5.14	7.18
(6 0 0)	-10.21	-6.56	-2.77	-2.77	0.68	1.80	8.17	8.17
(6 1 0)	-10.17	-6.62	-2.99	-2.80	1.06	2.06	7.22	8.14
(6 1 1)	-10.13	-6.69	-3.25	-2.66	1.15	2.46	7.00	7.53
(6 2 0)	-10.04	-6.79	-3.46	-2.85	1.99	2.75	5.74	8.04
(6 2 1)	-10.02	-6.87	-3.57	-2.64	1.66	3.39	5.75	7.34
(6 2 2)	-9.95	-7.08	-3.66	-2.36	1.56	4.40	5.61	6.31
(6 3 0)	-9.84	-7.04	-3.93	-2.81	3.23	3.64	4.41	7.77
(6 3 1)	-9.84	-7.13	-3.85	-2.65	2.58	4.13	4.78	7.24
(6 3 2)	-9.87	-7.29	-3.66	-2.27	2.01	4.30	5.71	6.31
(6 3 3)	-9.97	-7.35	-3.42	-1.92	1.83	4.23	5.14	7.19
(6 4 0)	-9.59	-7.35	-4.26	-2.68	2.82	4.64	5.13	6.91
(6 4 1)	-9.65	-7.38	-4.08	-2.58	2.83	3.94	5.92	6.83
(6 4 2)	-9.84	-7.38	-3.65	-2.27	2.60	3.50	5.90	7.13
(6 5 0)	-9.31	-7.67	-4.40	-2.54	1.81	5.53	6.19	6.40
(6 5 1)	-9.48	-7.56	-4.19	-2.47	1.87	5.20	5.71	6.77
(6 6 0)	-9.03	-7.97	-4.31	-2.59	1.29	4.23	7.37	7.45
(7 0 0)	-9.43	-7.59	-2.96	-2.96	0.69	1.25	9.12	9.12
(7 1 0)	-9.40	-7.61	-3.16	-3.06	1.05	1.55	8.23	9.01
(7 1 1)	-9.38	-7.62	-3.52	-2.85	1.02	2.10	8.06	8.40
(7 2 0)	-9.31	-7.66	-3.57	-3.26	1.96	2.34	6.71	8.47
(7 2 1)	-9.32	-7.66	-3.88	-2.88	1.48	3.14	6.73	8.07
(7 2 2)	-9.37	-7.65	-4.14	-2.53	1.36	4.29	6.58	7.06
(7 3 0)	-9.18	-7.76	-3.95	-3.39	3.17	3.45	5.15	7.25
(7 3 1)	-9.26	-7.71	-4.10	-3.05	2.43	4.38	5.21	7.21
(7 3 2)	-9.48	-7.56	-4.19	-2.47	1.87	5.20	5.71	6.77
(7 4 0)	-9.03	-7.90	-4.18	-3.36	3.63	4.58	4.85	5.78
(7 4 1)	-9.23	-7.73	-4.17	-3.13	3.53	3.89	5.80	5.85
(7 5 0)	-8.88	-8.08	-4.19	-3.18	2.38	4.33	6.14	6.29
(8 0 0)	-8.55	-8.55	-3.03	-3.03	0.88	0.88	9.56	9.56
(8 1 0)	-8.54	-8.54	-3.18	-3.18	1.21	1.21	9.04	9.04
(8 1 1)	-8.66	-8.41	-3.61	-2.92	0.99	1.97	8.71	8.83
(8 2 0)	-8.51	-8.51	-3.50	-3.50	2.07	2.07	7.72	7.72
(8 2 1)	-8.76	-8.25	-3.99	-2.96	1.42	3.04	7.69	7.70
(8 2 2)	-9.03	-7.97	-4.31	-2.59	1.29	4.23	7.37	7.45
(8 3 0)	-8.48	-8.47	-3.77	-3.77	3.25	3.25	6.17	6.18
(8 3 1)	-8.88	-8.08	-4.19	-3.18	2.38	4.33	6.14	6.29
(8 4 0)	-8.46	-8.46	-3.87	-3.87	4.53	4.53	4.77	4.77

TABLE IV.

Total density of electronic states, N(E), for Ge. The energy E is in eV, and N(E) is in eV^{-1} for both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.02	-11.84	0.31	-11.26	0.46
-12.98	0.00	-12.40	0.05	-11.82	0.32	-11.24	0.47
-12.96	0.00	-12.38	0.09	-11.80	0.32	-11.22	0.47
-12.94	0.00	-12.36	0.11	-11.78	0.32	-11.20	0.48
-12.92	0.00	-12.34	0.12	-11.76	0.33	-11.18	0.48
-12.90	0.00	-12.32	0.12	-11.74	0.33	-11.16	0.49
-12.88	0.00	-12.30	0.13	-11.72	0.34	-11.14	0.50
-12.86	0.00	-12.28	0.14	-11.70	0.34	-11.12	0.50
-12.84	0.00	-12.26	0.15	-11.68	0.35	-11.10	0.51
-12.82	0.00	-12.24	0.16	-11.66	0.35	-11.08	0.52
-12.80	0.00	-12.22	0.18	-11.64	0.36	-11.06	0.52
-12.78	0.00	-12.20	0.19	-11.62	0.36	-11.04	0.53
-12.76	0.00	-12.18	0.20	-11.60	0.37	-11.02	0.54
-12.74	0.00	-12.16	0.21	-11.58	0.38	-11.00	0.54
-12.72	0.00	-12.14	0.21	-11.56	0.38	-10.98	0.55
-12.70	0.00	-12.12	0.22	-11.54	0.39	-10.96	0.56
-12.68	0.00	-12.10	0.22	-11.52	0.40	-10.94	0.56
-12.66	0.00	-12.08	0.23	-11.50	0.40	-10.92	0.57
-12.64	0.00	-12.06	0.23	-11.48	0.41	-10.90	0.58
-12.62	0.00	-12.04	0.24	-11.46	0.42	-10.88	0.59
-12.60	0.00	-12.02	0.25	-11.44	0.42	-10.86	0.60
-12.58	0.00	-12.00	0.26	-11.42	0.43	-10.84	0.60
-12.56	0.00	-11.98	0.26	-11.40	0.43	-10.82	0.61
-12.54	0.00	-11.96	0.27	-11.38	0.44	-10.80	0.62
-12.52	0.00	-11.94	0.28	-11.36	0.44	-10.78	0.63
-12.50	0.00	-11.92	0.28	-11.34	0.44	-10.76	0.63
-12.48	0.00	-11.90	0.29	-11.32	0.45	-10.74	0.64
-12.46	0.00	-11.88	0.30	-11.30	0.45	-10.72	0.65
-12.44	0.00	-11.86	0.31	-11.28	0.46	-10.70	0.66

Table IV (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	0.67	-9.64	0.67	-8.60	0.07	-7.56	0.59
-10.66	0.68	-9.62	0.66	-8.58	0.05	-7.54	0.60
-10.64	0.69	-9.60	0.66	-8.56	0.03	-7.52	0.62
-10.62	0.71	-9.58	0.66	-8.54	0.02	-7.50	0.63
-10.60	0.72	-9.56	0.65	-8.52	0.02	-7.48	0.65
-10.58	0.73	-9.54	0.65	-8.50	0.03	-7.46	0.66
-10.56	0.75	-9.52	0.64	-8.48	0.03	-7.44	0.67
-10.54	0.77	-9.50	0.63	-8.46	0.04	-7.42	0.68
-10.52	0.79	-9.48	0.63	-8.44	0.05	-7.40	0.70
-10.50	0.81	-9.46	0.62	-8.42	0.07	-7.38	0.71
-10.48	0.84	-9.44	0.62	-8.40	0.08	-7.36	0.85
-10.46	0.87	-9.42	0.62	-8.38	0.09	-7.34	0.93
-10.44	0.90	-9.40	0.63	-8.36	0.10	-7.32	1.07
-10.42	0.95	-9.38	0.64	-8.34	0.11	-7.30	1.27
-10.40	0.99	-9.36	0.68	-8.32	0.12	-7.28	1.40
-10.38	1.01	-9.34	0.69	-8.30	0.13	-7.26	1.52
-10.36	0.96	-9.32	0.67	-8.28	0.14	-7.24	1.59
-10.34	0.95	-9.30	0.62	-8.26	0.15	-7.22	1.55
-10.32	0.96	-9.28	0.59	-8.24	0.16	-7.20	1.45
-10.30	0.97	-9.26	0.57	-8.22	0.17	-7.18	1.36
-10.28	0.99	-9.24	0.56	-8.20	0.18	-7.16	1.28
-10.26	1.01	-9.22	0.58	-8.18	0.19	-7.14	1.20
-10.24	1.02	-9.20	0.58	-8.16	0.20	-7.12	1.13
-10.22	1.01	-9.18	0.57	-8.14	0.21	-7.10	1.07
-10.20	0.98	-9.16	0.55	-8.12	0.22	-7.08	1.02
-10.18	0.95	-9.14	0.53	-8.10	0.23	-7.06	0.97
-10.16	0.91	-9.12	0.51	-8.08	0.24	-7.04	0.93
-10.14	0.86	-9.10	0.48	-8.06	0.26	-7.02	0.89
-10.12	0.84	-9.08	0.45	-8.04	0.27	-7.00	0.85
-10.10	0.85	-9.06	0.42	-8.02	0.28	-6.98	0.82
-10.08	0.85	-9.04	0.38	-8.00	0.30	-6.96	0.79
-10.06	0.85	-9.02	0.35	-7.98	0.31	-6.94	0.77
-10.04	0.85	-9.00	0.34	-7.96	0.33	-6.92	0.75
-10.02	0.85	-8.98	0.32	-7.94	0.35	-6.90	0.73
-10.00	0.84	-8.96	0.30	-7.92	0.37	-6.88	0.71
-9.98	0.83	-8.94	0.29	-7.90	0.39	-6.86	0.70
-9.96	0.83	-8.92	0.27	-7.88	0.43	-6.84	0.68
-9.94	0.85	-8.90	0.26	-7.86	0.48	-6.82	0.67
-9.92	0.86	-8.88	0.25	-7.84	0.51	-6.80	0.66
-9.90	0.85	-8.86	0.23	-7.82	0.55	-6.78	0.64
-9.88	0.83	-8.84	0.22	-7.80	0.58	-6.76	0.63
-9.86	0.81	-8.82	0.21	-7.78	0.60	-6.74	0.62
-9.84	0.84	-8.80	0.20	-7.76	0.62	-6.72	0.61
-9.82	0.82	-8.78	0.19	-7.74	0.62	-6.70	0.59
-9.80	0.80	-8.76	0.18	-7.72	0.58	-6.68	0.58
-9.78	0.79	-8.74	0.17	-7.70	0.58	-6.66	0.57
-9.76	0.78	-8.72	0.15	-7.68	0.64	-6.64	0.56
-9.74	0.76	-8.70	0.14	-7.66	0.75	-6.62	0.55
-9.72	0.75	-8.68	0.13	-7.64	0.74	-6.60	0.54
-9.70	0.73	-8.66	0.12	-7.62	0.65	-6.58	0.53
-9.68	0.71	-8.64	0.10	-7.60	0.60	-6.56	0.53
-9.66	0.69	-8.62	0.09	-7.58	0.58	-6.54	0.52

Table IV (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	0.51	-5.48	0.27	-4.44	0.15	-3.40	1.07
-6.50	0.50	-5.46	0.27	-4.42	0.15	-3.38	1.08
-6.48	0.50	-5.44	0.26	-4.40	0.15	-3.36	1.13
-6.46	0.49	-5.42	0.26	-4.38	0.17	-3.34	1.15
-6.44	0.48	-5.40	0.26	-4.36	0.24	-3.32	1.17
-6.42	0.48	-5.38	0.26	-4.34	0.33	-3.30	1.18
-6.40	0.47	-5.36	0.25	-4.32	0.40	-3.28	1.20
-6.38	0.46	-5.34	0.25	-4.30	0.47	-3.26	1.21
-6.36	0.46	-5.32	0.25	-4.28	0.53	-3.24	1.22
-6.34	0.45	-5.30	0.25	-4.26	0.60	-3.22	1.24
-6.32	0.45	-5.28	0.24	-4.24	0.70	-3.20	1.25
-6.30	0.44	-5.26	0.24	-4.22	0.84	-3.18	1.26
-6.28	0.44	-5.24	0.24	-4.20	1.03	-3.16	1.26
-6.26	0.43	-5.22	0.24	-4.18	1.23	-3.14	1.27
-6.24	0.42	-5.20	0.23	-4.16	1.40	-3.12	1.28
-6.22	0.42	-5.18	0.23	-4.14	1.40	-3.10	1.30
-6.20	0.41	-5.16	0.23	-4.12	1.39	-3.08	1.33
-6.18	0.41	-5.14	0.23	-4.10	1.38	-3.06	1.36
-6.16	0.40	-5.12	0.22	-4.08	1.39	-3.04	1.40
-6.14	0.40	-5.10	0.22	-4.06	1.38	-3.02	1.44
-6.12	0.39	-5.08	0.22	-4.04	1.36	-3.00	1.48
-6.10	0.39	-5.06	0.22	-4.02	1.34	-2.98	1.52
-6.08	0.38	-5.04	0.21	-4.00	1.31	-2.96	1.54
-6.06	0.38	-5.02	0.21	-3.98	1.28	-2.94	1.55
-6.04	0.37	-5.00	0.21	-3.96	1.24	-2.92	1.54
-6.02	0.37	-4.98	0.21	-3.94	1.20	-2.90	1.51
-6.00	0.37	-4.96	0.20	-3.92	1.18	-2.88	1.48
-5.98	0.36	-4.94	0.20	-3.90	1.16	-2.86	1.49
-5.96	0.36	-4.92	0.20	-3.88	1.14	-2.84	1.52
-5.94	0.35	-4.90	0.20	-3.86	1.12	-2.82	1.55
-5.92	0.35	-4.88	0.20	-3.84	1.11	-2.80	1.55
-5.90	0.34	-4.86	0.19	-3.82	1.10	-2.78	1.54
-5.88	0.34	-4.84	0.19	-3.80	1.10	-2.76	1.52
-5.86	0.34	-4.82	0.19	-3.78	1.10	-2.74	1.49
-5.84	0.33	-4.80	0.19	-3.76	1.09	-2.72	1.47
-5.82	0.33	-4.78	0.18	-3.74	1.09	-2.70	1.44
-5.80	0.32	-4.76	0.18	-3.72	1.09	-2.68	1.42
-5.78	0.32	-4.74	0.18	-3.70	1.09	-2.66	1.40
-5.76	0.32	-4.72	0.18	-3.68	1.09	-2.64	1.39
-5.74	0.31	-4.70	0.18	-3.66	1.08	-2.62	1.41
-5.72	0.31	-4.68	0.17	-3.64	1.08	-2.60	1.43
-5.70	0.31	-4.66	0.17	-3.62	1.07	-2.58	1.45
-5.68	0.30	-4.64	0.17	-3.60	1.06	-2.56	1.46
-5.66	0.30	-4.62	0.17	-3.58	1.05	-2.54	1.46
-5.64	0.29	-4.60	0.17	-3.56	1.05	-2.52	1.45
-5.62	0.29	-4.58	0.16	-3.54	1.04	-2.50	1.44
-5.60	0.29	-4.56	0.16	-3.52	1.04	-2.48	1.43
-5.58	0.28	-4.54	0.16	-3.50	1.04	-2.46	1.42
-5.56	0.28	-4.52	0.16	-3.48	1.04	-2.44	1.41
-5.54	0.28	-4.50	0.16	-3.46	1.05	-2.42	1.39
-5.52	0.28	-4.48	0.15	-3.44	1.05	-2.40	1.37
-5.50	0.27	-4.46	0.15	-3.42	1.06	-2.38	1.35

Table IV (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.33	-1.32	0.86	-0.28	0.14	0.76	0.09
-2.34	1.32	-1.30	0.84	-0.26	0.13	0.78	0.12
-2.32	1.32	-1.28	0.81	-0.24	0.12	0.80	0.14
-2.30	1.32	-1.26	0.79	-0.22	0.10	0.82	0.17
-2.28	1.32	-1.24	0.76	-0.20	0.09	0.84	0.20
-2.26	1.32	-1.22	0.74	-0.18	0.08	0.86	0.23
-2.24	1.33	-1.20	0.71	-0.16	0.07	0.88	0.26
-2.22	1.34	-1.18	0.69	-0.14	0.06	0.90	0.30
-2.20	1.34	-1.16	0.67	-0.12	0.05	0.92	0.33
-2.18	1.34	-1.14	0.65	-0.10	0.03	0.94	0.36
-2.16	1.34	-1.12	0.63	-0.08	0.02	0.96	0.40
-2.14	1.34	-1.10	0.61	-0.06	0.01	0.98	0.42
-2.12	1.33	-1.08	0.59	-0.04	0.01	1.00	0.45
-2.10	1.32	-1.06	0.57	-0.02	0.00	1.02	0.47
-2.08	1.31	-1.04	0.55	0.00	0.00	1.04	0.48
-2.06	1.30	-1.02	0.54	0.02	0.00	1.06	0.50
-2.04	1.29	-1.00	0.52	0.04	0.00	1.08	0.52
-2.02	1.28	-0.98	0.50	0.06	0.00	1.10	0.54
-2.00	1.27	-0.96	0.49	0.08	0.00	1.12	0.56
-1.98	1.26	-0.94	0.47	0.10	0.00	1.14	0.58
-1.96	1.25	-0.92	0.46	0.12	0.00	1.16	0.60
-1.94	1.24	-0.90	0.45	0.14	0.00	1.18	0.62
-1.92	1.24	-0.88	0.43	0.16	0.00	1.20	0.64
-1.90	1.24	-0.86	0.42	0.18	0.00	1.22	0.66
-1.88	1.25	-0.84	0.41	0.20	0.00	1.24	0.68
-1.86	1.25	-0.82	0.40	0.22	0.00	1.26	0.71
-1.84	1.26	-0.80	0.39	0.24	0.00	1.28	0.73
-1.82	1.28	-0.78	0.38	0.26	0.00	1.30	0.75
-1.80	1.26	-0.76	0.36	0.28	0.00	1.32	0.77
-1.78	1.25	-0.74	0.35	0.30	0.00	1.34	0.79
-1.76	1.23	-0.72	0.35	0.32	0.00	1.36	0.81
-1.74	1.21	-0.70	0.34	0.34	0.00	1.38	0.83
-1.72	1.19	-0.68	0.33	0.36	0.00	1.40	0.85
-1.70	1.18	-0.66	0.32	0.38	0.00	1.42	0.87
-1.68	1.18	-0.64	0.31	0.40	0.00	1.44	0.90
-1.66	1.18	-0.62	0.30	0.42	0.00	1.46	0.92
-1.64	1.19	-0.60	0.29	0.44	0.00	1.48	0.95
-1.62	1.19	-0.58	0.28	0.46	0.00	1.50	0.98
-1.60	1.20	-0.56	0.27	0.48	0.00	1.52	1.02
-1.58	1.21	-0.54	0.26	0.50	0.00	1.54	1.05
-1.56	1.21	-0.52	0.25	0.52	0.00	1.56	1.09
-1.54	1.20	-0.50	0.25	0.54	0.00	1.58	1.13
-1.52	1.20	-0.48	0.24	0.56	0.00	1.60	1.16
-1.50	1.19	-0.46	0.23	0.58	0.00	1.62	1.20
-1.48	1.19	-0.44	0.22	0.60	0.01	1.64	1.22
-1.46	1.19	-0.42	0.21	0.62	0.01	1.66	1.26
-1.44	1.21	-0.40	0.20	0.64	0.02	1.68	1.30
-1.42	1.20	-0.38	0.19	0.66	0.02	1.70	1.34
-1.40	1.05	-0.36	0.18	0.68	0.03	1.72	1.39
-1.38	0.96	-0.34	0.17	0.70	0.04	1.74	1.44
-1.36	0.92	-0.32	0.16	0.72	0.05	1.76	1.50
-1.34	0.89	-0.30	0.15	0.74	0.07	1.78	1.57

Table IV (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	1.64	2.84	0.83	3.88	1.36	4.92	1.35
1.82	1.71	2.86	0.84	3.90	1.40	4.94	1.42
1.84	1.76	2.88	0.85	3.92	1.47	4.96	1.49
1.86	1.79	2.90	0.86	3.94	1.54	4.98	1.58
1.88	1.82	2.92	0.87	3.96	1.50	5.00	1.65
1.90	1.84	2.94	0.89	3.98	1.44	5.02	1.66
1.92	1.87	2.96	0.91	4.00	1.40	5.04	1.60
1.94	1.91	2.98	0.93	4.02	1.35	5.06	1.61
1.96	1.96	3.00	0.95	4.04	1.32	5.08	1.49
1.98	2.00	3.02	0.98	4.06	1.29	5.10	1.41
2.00	2.00	3.04	1.00	4.08	1.26	5.12	1.38
2.02	1.96	3.06	1.02	4.10	1.24	5.14	1.38
2.04	1.85	3.08	1.05	4.12	1.22	5.16	1.39
2.06	1.73	3.10	1.07	4.14	1.21	5.18	1.40
2.08	1.64	3.12	1.09	4.16	1.19	5.20	1.40
2.10	1.55	3.14	1.11	4.18	1.18	5.22	1.40
2.12	1.48	3.16	1.14	4.20	1.17	5.24	1.40
2.14	1.42	3.18	1.18	4.22	1.15	5.26	1.40
2.16	1.38	3.20	1.22	4.24	1.13	5.28	1.40
2.18	1.35	3.22	1.26	4.26	1.11	5.30	1.40
2.20	1.32	3.24	1.34	4.28	1.09	5.32	1.39
2.22	1.30	3.26	1.43	4.30	1.06	5.34	1.38
2.24	1.27	3.28	1.32	4.32	1.04	5.36	1.37
2.26	1.24	3.30	1.15	4.34	1.01	5.38	1.37
2.28	1.22	3.32	1.16	4.36	1.00	5.40	1.36
2.30	1.19	3.34	1.17	4.38	0.98	5.42	1.36
2.32	1.16	3.36	1.18	4.40	0.98	5.44	1.36
2.34	1.13	3.38	1.19	4.42	0.98	5.46	1.36
2.36	1.10	3.40	1.20	4.44	0.98	5.48	1.36
2.38	1.06	3.42	1.21	4.46	0.98	5.50	1.36
2.40	1.04	3.44	1.23	4.48	0.98	5.52	1.37
2.42	1.02	3.46	1.25	4.50	0.98	5.54	1.39
2.44	1.00	3.48	1.29	4.52	0.98	5.56	1.40
2.46	0.99	3.50	1.32	4.54	0.97	5.58	1.40
2.48	0.95	3.52	1.38	4.56	0.96	5.60	1.39
2.50	0.92	3.54	1.48	4.58	0.94	5.62	1.39
2.52	0.89	3.56	1.60	4.60	0.94	5.64	1.40
2.54	0.87	3.58	1.74	4.62	0.94	5.66	1.45
2.56	0.86	3.60	2.39	4.64	0.95	5.68	1.54
2.58	0.86	3.62	3.01	4.66	0.96	5.70	1.65
2.60	0.87	3.64	3.05	4.68	0.97	5.72	1.45
2.62	0.90	3.66	1.88	4.70	0.99	5.74	1.15
2.64	0.92	3.68	1.88	4.72	1.01	5.76	1.07
2.66	0.92	3.70	1.89	4.74	1.02	5.78	1.03
2.68	0.91	3.72	1.90	4.76	1.04	5.80	1.00
2.70	0.90	3.74	1.91	4.78	1.06	5.82	0.97
2.72	0.89	3.76	1.91	4.80	1.08	5.84	0.93
2.74	0.88	3.78	1.91	4.82	1.12	5.86	0.90
2.76	0.87	3.80	1.63	4.84	1.16	5.88	0.86
2.78	0.85	3.82	1.45	4.86	1.20	5.90	0.83
2.80	0.84	3.84	1.36	4.88	1.24	5.92	0.79
2.82	0.83	3.86	1.34	4.90	1.29	5.94	0.79

Table IV (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	0.78	6.98	1.05	8.00	0.72	9.02	1.39
5.98	0.78	7.00	1.02	8.02	0.75	9.04	1.41
6.00	0.78	7.02	0.99	8.04	0.77	9.06	1.41
6.02	0.78	7.04	0.97	8.06	0.81	9.08	1.41
6.04	0.78	7.06	0.94	8.08	0.87	9.10	1.41
6.06	0.78	7.08	0.91	8.10	0.94	9.12	1.44
6.08	0.78	7.10	0.89	8.12	1.02	9.14	1.48
6.10	0.78	7.12	0.86	8.14	1.12	9.16	1.52
6.12	0.78	7.14	0.83	8.16	1.24	9.18	1.56
6.14	0.78	7.16	0.81	8.18	1.32	9.20	1.59
6.16	0.78	7.18	0.79	8.20	1.36	9.22	1.61
6.18	0.79	7.20	0.77	8.22	1.36	9.24	1.62
6.20	0.79	7.22	0.76	8.24	1.33	9.26	1.63
6.22	0.79	7.24	0.74	8.26	1.25	9.28	1.63
6.24	0.79	7.26	0.73	8.28	1.20	9.30	1.62
6.26	0.80	7.28	0.72	8.30	1.20	9.32	1.61
6.28	0.80	7.30	0.72	8.32	1.22	9.34	1.61
6.30	0.80	7.32	0.71	8.34	1.23	9.36	1.61
6.32	0.88	7.34	0.70	8.36	1.24	9.38	1.61
6.34	0.96	7.36	0.70	8.38	1.26	9.40	1.60
6.36	0.95	7.38	0.69	8.40	1.29	9.42	1.59
6.38	0.91	7.40	0.69	8.42	1.31	9.44	1.60
6.40	0.89	7.42	0.68	8.44	1.33	9.46	1.64
6.42	0.90	7.44	0.68	8.46	1.34	9.48	1.67
6.44	0.92	7.46	0.68	8.48	1.35	9.50	1.62
6.46	0.95	7.48	0.68	8.50	1.35	9.52	1.58
6.48	0.98	7.50	0.67	8.52	1.33	9.54	1.54
6.50	1.01	7.52	0.67	8.54	1.32	9.56	1.51
6.52	1.03	7.54	0.66	8.56	1.33	9.58	1.50
6.54	1.06	7.56	0.66	8.58	1.32	9.60	1.49
6.56	1.09	7.58	0.65	8.60	1.32	9.62	1.49
6.58	1.12	7.60	0.65	8.62	1.32	9.64	1.48
6.60	1.16	7.62	0.65	8.64	1.31	9.66	1.46
6.62	1.21	7.64	0.64	8.66	1.33	9.68	1.45
6.64	1.26	7.66	0.64	8.68	1.34	9.70	1.44
6.66	1.31	7.68	0.65	8.70	1.35	9.72	1.43
6.68	1.36	7.70	0.67	8.72	1.35	9.74	1.42
6.70	1.43	7.72	0.72	8.74	1.34	9.76	1.42
6.72	1.49	7.74	0.75	8.76	1.31	9.78	1.40
6.74	1.51	7.76	0.77	8.78	1.30	9.80	1.39
6.76	1.47	7.78	0.77	8.80	1.29	9.82	1.38
6.78	1.40	7.80	0.77	8.82	1.29	9.84	1.37
6.80	1.34	7.82	0.76	8.84	1.28	9.86	1.38
6.82	1.29	7.84	0.75	8.86	1.28	9.88	1.38
6.84	1.26	7.86	0.74	8.88	1.28	9.90	1.39
6.86	1.24	7.88	0.71	8.90	1.28	9.92	1.38
6.88	1.21	7.90	0.68	8.92	1.29	9.94	1.38
6.90	1.18	7.92	0.66	8.94	1.30	9.96	1.37
6.92	1.15	7.94	0.65	8.96	1.31	9.98	1.36
6.94	1.12	7.96	0.68	8.98	1.33	10.00	1.36
6.96	1.08	7.98	0.70	9.00	1.36	10.02	1.35

TABLE V.

Energy eigenvalues for the first 8 bands of GaP. The first column gives the value of $\vec{k}=\frac{4a}{\pi}$ (k_x, k_y, k_z), where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.37	0.00	0.00	0.00	2.05	4.26	4.26	4.26
(1 0 0)	-12.30	-0.51	-0.19	-0.19	2.54	4.05	4.53	4.53
(1 1 0)	-12.24	-1.07	-0.38	-0.06	2.71	4.27	4.39	4.82
(1 1 1)	-12.18	-1.57	-0.22	-0.22	2.67	4.62	4.62	4.73
(2 0 0)	-12.11	-1.47	-0.63	-0.63	3.27	3.70	5.21	5.21
(2 1 0)	-12.05	-1.93	-0.84	-0.36	3.23	3.91	5.06	5.48
(2 1 1)	-11.98	-2.36	-0.62	-0.45	2.95	4.28	5.19	5.50
(2 2 0)	-11.86	-2.69	-1.32	-0.26	3.27	4.56	4.78	5.92
(2 2 1)	-11.80	-3.10	-0.98	-0.36	2.83	4.88	4.98	5.99
(2 2 2)	-11.62	-3.80	-0.64	-0.64	2.41	5.14	5.14	6.49
(3 0 0)	-11.79	-2.51	-1.16	-1.16	2.93	4.14	6.14	6.14
(3 1 0)	-11.73	-2.84	-1.38	-0.92	3.23	4.04	6.01	6.11
(3 1 1)	-11.67	-3.19	-1.12	-1.07	3.22	4.15	5.97	6.11
(3 2 0)	-11.55	-3.48	-1.88	-0.62	3.60	4.26	5.71	6.09
(3 2 1)	-11.49	-3.84	-1.52	-0.71	3.14	4.59	5.70	6.31
(3 2 2)	-11.32	-4.49	-1.02	-0.92	2.59	4.89	5.56	6.94
(3 3 0)	-11.26	-4.15	-2.43	-0.64	3.57	5.25	5.40	6.08
(3 3 1)	-11.21	-4.50	-2.03	-0.68	3.18	5.24	5.32	6.59
(3 3 2)	-11.06	-5.12	-1.36	-0.80	2.48	5.19	5.27	7.51
(3 3 3)	-10.83	-5.70	-0.98	-0.98	2.07	5.18	5.18	8.14
(4 0 0)	-11.36	-3.56	-1.67	-1.67	2.45	4.18	7.19	7.19
(4 1 0)	-11.30	-3.77	-1.89	-1.52	2.79	4.21	6.62	7.12
(4 1 1)	-11.25	-4.02	-1.76	-1.60	2.94	4.35	6.44	6.86
(4 2 0)	-11.14	-4.24	-2.38	-1.24	3.60	4.32	5.87	6.93
(4 2 1)	-11.08	-4.54	-2.08	-1.30	3.31	4.58	6.06	6.67
(4 2 2)	-10.94	-5.10	-1.63	-1.41	2.99	4.75	6.10	6.80
(4 3 0)	-10.87	-4.78	-2.93	-1.08	3.79	4.97	5.82	6.64
(4 3 1)	-10.83	-5.09	-2.55	-1.09	3.48	4.85	5.99	6.80
(4 3 2)	-10.71	-5.65	-1.85	-1.13	2.84	4.86	5.70	7.63
(4 3 3)	-10.55	-6.13	-1.30	-1.20	2.32	4.95	5.39	8.33
(4 4 0)	-10.53	-5.29	-3.10	-1.18	3.45	6.05	6.24	6.39
(4 4 1)	-10.50	-5.57	-3.01	-1.17	3.34	5.36	6.01	7.27
(4 4 2)	-10.44	-6.06	-2.23	-1.15	2.91	5.00	5.57	8.20
(4 4 3)	-10.37	-6.43	-1.47	-1.12	2.28	5.03	5.23	8.59
(4 4 4)	-10.34	-6.57	-1.11	-1.11	1.95	5.10	5.10	8.55
(5 0 0)	-10.83	-4.57	-2.10	-2.10	2.08	3.57	8.30	8.30
(5 1 0)	-10.78	-4.68	-2.31	-2.04	2.43	3.73	7.39	8.27

Table V (Cont'd)

(5 1 1)	-10.73	-4.83	-2.38	-2.00	2.57	4.01	7.13	7.80
(5 2 0)	-10.64	-4.98	-2.79	-1.91	3.29	4.23	6.11	8.18
(5 2 1)	-10.60	-5.14	-2.65	-1.87	3.06	4.65	6.18	7.60
(5 2 2)	-10.49	-5.61	-2.46	-1.75	2.97	5.06	6.56	6.77
(5 3 0)	-10.42	-5.35	-3.30	-1.74	4.12	4.79	5.47	8.01
(5 3 1)	-10.39	-5.59	-3.02	-1.70	3.75	4.72	6.03	7.57
(5 3 2)	-10.33	-6.02	-2.48	-1.59	3.20	4.77	6.31	7.50
(5 3 3)	-10.27	-6.36	-2.07	-1.42	2.84	4.81	5.81	8.31
(5 4 0)	-10.14	-5.72	-3.73	-1.64	3.47	5.99	6.09	7.77
(5 4 1)	-10.15	-5.94	-3.39	-1.60	3.46	5.22	6.59	7.77
(5 4 2)	-10.17	-6.29	-2.67	-1.49	3.25	4.74	6.19	8.33
(5 4 3)	-10.24	-6.48	-1.94	-1.32	2.73	4.79	5.61	8.67
(5 5 0)	-9.86	-6.02	-4.00	-1.75	2.92	6.44	7.33	7.68
(5 5 1)	-9.90	-6.16	-3.67	-1.71	2.97	5.94	7.01	7.89
(5 5 2)	-10.04	-6.35	-2.93	-1.59	3.04	5.19	6.39	8.13
(6 0 0)	-10.25	-5.50	-2.41	-2.41	1.86	2.87	9.41	9.41
(6 1 0)	-10.21	-5.55	-2.62	-2.44	2.20	3.10	8.36	9.40
(6 1 1)	-10.18	-5.61	-2.86	-2.31	2.28	3.50	8.12	8.75
(6 2 0)	-10.11	-5.67	-3.06	-2.48	3.06	3.78	6.90	9.36
(6 2 1)	-10.08	-5.77	-3.16	-2.28	2.76	4.37	6.93	8.57
(6 2 2)	-10.03	-6.00	-3.22	-2.02	2.70	5.24	6.92	7.53
(6 3 0)	-9.95	-5.86	-3.53	-2.43	4.14	4.72	5.60	9.26
(6 3 1)	-9.95	-5.98	-3.42	-2.28	3.63	5.06	5.98	8.56
(6 3 2)	-9.97	-6.22	-3.20	-1.92	3.15	5.25	6.75	7.66
(6 3 3)	-10.04	-6.35	-2.93	-1.59	3.04	5.19	6.39	8.13
(6 4 0)	-9.77	-6.06	-3.89	-2.31	3.87	5.71	5.99	8.53
(6 4 1)	-9.81	-6.16	-3.66	-2.21	3.89	4.99	6.68	8.63
(6 4 2)	-9.95	-6.30	-3.17	-1.92	3.73	4.57	6.84	8.33
(6 5 0)	-9.61	-6.23	-4.05	-2.18	2.92	6.04	7.33	8.18
(6 5 1)	-9.71	-6.25	-3.80	-2.12	2.99	5.84	6.98	8.23
(6 6 0)	-9.50	-6.36	-3.96	-2.24	2.40	5.12	8.64	8.68
(7 0 0)	-9.72	-6.26	-2.61	-2.61	1.80	2.36	10.37	10.37
(7 1 0)	-9.69	-6.25	-2.79	-2.70	2.11	2.64	9.37	10.28
(7 1 1)	-9.68	-6.25	-3.15	-2.50	2.11	3.15	9.18	9.62
(7 2 0)	-9.64	-6.24	-3.19	-2.89	2.94	3.42	7.88	9.73
(7 2 1)	-9.64	-6.25	-3.51	-2.52	2.55	4.13	7.90	9.29
(7 2 2)	-9.65	-6.26	-3.76	-2.19	2.48	5.17	7.84	8.27
(7 3 0)	-9.56	-6.24	-3.58	-3.01	4.04	4.50	6.40	8.54
(7 3 1)	-9.59	-6.25	-3.73	-2.67	3.46	5.19	6.53	8.54
(7 3 2)	-9.71	-6.25	-3.80	-2.12	2.99	5.84	6.98	8.23
(7 4 0)	-9.49	-6.27	-3.83	-2.97	4.47	5.46	6.01	7.37
(7 4 1)	-9.58	-6.26	-3.80	-2.75	4.37	5.03	6.42	7.74
(7 5 0)	-9.45	-6.35	-3.85	-2.80	3.39	5.17	7.30	7.73
(8 0 0)	-9.47	-6.58	-2.68	-2.68	1.84	2.13	10.83	10.83
(8 1 0)	-9.46	-6.55	-2.83	-2.81	2.12	2.45	10.21	10.22
(8 1 1)	-9.45	-6.52	-3.24	-2.57	2.05	3.03	9.87	10.04
(8 2 0)	-9.43	-6.48	-3.17	-3.09	2.91	3.28	8.82	8.98
(8 2 1)	-9.44	-6.45	-3.63	-2.60	2.47	4.04	8.83	8.94
(8 2 2)	-9.50	-6.36	-3.96	-2.24	2.40	5.12	8.64	8.68
(8 3 0)	-9.40	-6.39	-3.48	-3.33	4.00	4.41	7.30	7.57
(8 3 1)	-9.45	-6.35	-3.85	-2.80	3.39	5.17	7.30	7.73
(8 4 0)	-9.38	-6.35	-3.60	-3.42	4.85	5.29	6.31	6.58

TABLE VI.

Total density of electronic states, N(E), for GaP. The energy E is in eV, and N(E) is in eV^{-1} for both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.00	-11.84	0.28	-11.26	0.46
-12.98	0.00	-12.40	0.00	-11.82	0.28	-11.24	0.46
-12.96	0.00	-12.38	0.00	-11.80	0.29	-11.22	0.47
-12.94	0.00	-12.36	0.00	-11.78	0.30	-11.20	0.48
-12.92	0.00	-12.34	0.01	-11.76	0.31	-11.18	0.48
-12.90	0.00	-12.32	0.04	-11.74	0.31	-11.16	0.49
-12.88	0.00	-12.30	0.07	-11.72	0.32	-11.14	0.50
-12.86	0.00	-12.28	0.10	-11.70	0.32	-11.12	0.50
-12.84	0.00	-12.26	0.11	-11.68	0.33	-11.10	0.51
-12.82	0.00	-12.24	0.12	-11.66	0.33	-11.08	0.52
-12.80	0.00	-12.22	0.12	-11.64	0.34	-11.06	0.53
-12.78	0.00	-12.20	0.13	-11.62	0.34	-11.04	0.53
-12.76	0.00	-12.18	0.14	-11.60	0.35	-11.02	0.54
-12.74	0.00	-12.16	0.15	-11.58	0.35	-11.00	0.55
-12.72	0.00	-12.14	0.16	-11.56	0.36	-10.98	0.56
-12.70	0.00	-12.12	0.18	-11.54	0.36	-10.96	0.57
-12.68	0.00	-12.10	0.19	-11.52	0.37	-10.94	0.58
-12.66	0.00	-12.08	0.20	-11.50	0.38	-10.92	0.59
-12.64	0.00	-12.06	0.21	-11.48	0.38	-10.90	0.60
-12.62	0.00	-12.04	0.21	-11.46	0.39	-10.88	0.61
-12.60	0.00	-12.02	0.21	-11.44	0.40	-10.86	0.62
-12.58	0.00	-12.00	0.22	-11.42	0.41	-10.84	0.63
-12.56	0.00	-11.98	0.22	-11.40	0.41	-10.82	0.64
-12.54	0.00	-11.96	0.23	-11.38	0.42	-10.80	0.65
-12.52	0.00	-11.94	0.24	-11.36	0.43	-10.78	0.66
-12.50	0.00	-11.92	0.25	-11.34	0.43	-10.76	0.67
-12.48	0.00	-11.90	0.25	-11.32	0.44	-10.74	0.68
-12.46	0.00	-11.88	0.26	-11.30	0.45	-10.72	0.70
-12.44	0.00	-11.86	0.27	-11.28	0.45	-10.70	0.71

Table VI (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	0.72	-9.64	1.44	-8.60	0.00	-7.56	0.00
-10.66	0.74	-9.62	1.42	-8.58	0.00	-7.54	0.00
-10.64	0.75	-9.60	1.36	-8.56	0.00	-7.52	0.00
-10.62	0.77	-9.58	1.38	-8.54	0.00	-7.50	0.00
-10.60	0.79	-9.56	1.44	-8.52	0.00	-7.48	0.00
-10.58	0.81	-9.54	1.38	-8.50	0.00	-7.46	0.00
-10.56	0.83	-9.52	1.29	-8.48	0.00	-7.44	0.00
-10.54	0.85	-9.50	1.17	-8.46	0.00	-7.42	0.00
-10.52	0.87	-9.48	1.03	-8.44	0.00	-7.40	0.00
-10.50	0.90	-9.46	0.83	-8.42	0.00	-7.38	0.00
-10.48	0.93	-9.44	0.35	-8.40	0.00	-7.36	0.00
-10.46	0.97	-9.42	0.13	-8.38	0.00	-7.34	0.00
-10.44	1.02	-9.40	0.03	-8.36	0.00	-7.32	0.00
-10.42	1.07	-9.38	0.00	-8.34	0.00	-7.30	0.00
-10.40	1.13	-9.36	0.00	-8.32	0.00	-7.28	0.00
-10.38	1.20	-9.34	0.00	-8.30	0.00	-7.26	0.00
-10.36	1.17	-9.32	0.00	-8.28	0.00	-7.24	0.00
-10.34	1.15	-9.30	0.00	-8.26	0.00	-7.22	0.00
-10.32	1.16	-9.28	0.00	-8.24	0.00	-7.20	0.00
-10.30	1.18	-9.26	0.00	-8.22	0.00	-7.18	0.00
-10.28	1.22	-9.24	0.00	-8.20	0.00	-7.16	0.00
-10.26	1.26	-9.22	0.00	-8.18	0.00	-7.14	0.00
-10.24	1.26	-9.20	0.00	-8.16	0.00	-7.12	0.00
-10.22	1.22	-9.18	0.00	-8.14	0.00	-7.10	0.00
-10.20	1.18	-9.16	0.00	-8.12	0.00	-7.08	0.00
-10.18	1.12	-9.14	0.00	-8.10	0.00	-7.06	0.00
-10.16	1.08	-9.12	0.00	-8.08	0.00	-7.04	0.00
-10.14	1.09	-9.10	0.00	-8.06	0.00	-7.02	0.00
-10.12	1.11	-9.08	0.00	-8.04	0.00	-7.00	0.00
-10.10	1.12	-9.06	0.00	-8.02	0.00	-6.98	0.00
-10.08	1.13	-9.04	0.00	-8.00	0.00	-6.96	0.00
-10.06	1.13	-9.02	0.00	-7.98	0.00	-6.94	0.00
-10.04	1.13	-9.00	0.00	-7.96	0.00	-6.92	0.00
-10.02	1.17	-8.98	0.00	-7.94	0.00	-6.90	0.00
-10.00	1.20	-8.96	0.00	-7.92	0.00	-6.88	0.00
-9.98	1.19	-8.94	0.00	-7.90	0.00	-6.86	0.00
-9.96	1.17	-8.92	0.00	-7.88	0.00	-6.84	0.00
-9.94	1.21	-8.90	0.00	-7.86	0.00	-6.82	0.00
-9.92	1.19	-8.88	0.00	-7.84	0.00	-6.80	0.00
-9.90	1.17	-8.86	0.00	-7.82	0.00	-6.78	0.00
-9.88	1.15	-8.84	0.00	-7.80	0.00	-6.76	0.00
-9.86	1.13	-8.82	0.00	-7.78	0.00	-6.74	0.00
-9.84	1.10	-8.80	0.00	-7.76	0.00	-6.72	0.00
-9.82	1.06	-8.78	0.00	-7.74	0.00	-6.70	0.00
-9.80	1.04	-8.76	0.00	-7.72	0.00	-6.68	0.00
-9.78	1.04	-8.74	0.00	-7.70	0.00	-6.66	0.00
-9.76	1.04	-8.72	0.00	-7.68	0.00	-6.64	0.00
-9.74	1.04	-8.70	0.00	-7.66	0.00	-6.62	0.00
-9.72	1.03	-8.68	0.00	-7.64	0.00	-6.60	0.00
-9.70	1.04	-8.66	0.00	-7.62	0.00	-6.58	0.00
-9.68	1.12	-8.64	0.00	-7.60	0.00	-6.56	0.02
-9.66	1.29	-8.62	0.00	-7.58	0.00	-6.54	0.07

Table VI (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	0.12	-5.48	0.56	-4.44	0.26	-3.40	1.05
-6.50	0.17	-5.46	0.55	-4.42	0.25	-3.38	1.05
-6.48	0.23	-5.44	0.54	-4.40	0.25	-3.36	1.05
-6.46	0.33	-5.42	0.53	-4.38	0.25	-3.34	1.05
-6.44	0.49	-5.40	0.52	-4.36	0.25	-3.32	1.05
-6.42	0.64	-5.38	0.51	-4.34	0.24	-3.30	1.05
-6.40	0.76	-5.36	0.50	-4.32	0.24	-3.28	1.05
-6.38	0.89	-5.34	0.49	-4.30	0.24	-3.26	1.05
-6.36	1.05	-5.32	0.49	-4.28	0.23	-3.24	1.05
-6.34	1.31	-5.30	0.48	-4.26	0.23	-3.22	1.06
-6.32	1.62	-5.28	0.47	-4.24	0.23	-3.20	1.06
-6.30	1.94	-5.26	0.46	-4.22	0.23	-3.18	1.06
-6.28	2.41	-5.24	0.46	-4.20	0.22	-3.16	1.06
-6.26	3.40	-5.22	0.45	-4.18	0.22	-3.14	1.06
-6.24	2.55	-5.20	0.44	-4.16	0.22	-3.12	1.06
-6.22	2.26	-5.18	0.44	-4.14	0.21	-3.10	1.06
-6.20	2.48	-5.16	0.43	-4.12	0.21	-3.08	1.07
-6.18	2.54	-5.14	0.42	-4.10	0.21	-3.06	1.07
-6.16	2.44	-5.12	0.42	-4.08	0.21	-3.04	1.08
-6.14	2.20	-5.10	0.41	-4.06	0.20	-3.02	1.09
-6.12	1.99	-5.08	0.40	-4.04	0.20	-3.00	1.10
-6.10	1.81	-5.06	0.40	-4.02	0.23	-2.98	1.15
-6.08	1.65	-5.04	0.39	-4.00	0.30	-2.96	1.18
-6.06	1.52	-5.02	0.38	-3.98	0.37	-2.94	1.19
-6.04	1.42	-5.00	0.38	-3.96	0.42	-2.92	1.21
-6.02	1.34	-4.98	0.37	-3.94	0.47	-2.90	1.23
-6.00	1.26	-4.96	0.37	-3.92	0.52	-2.88	1.24
-5.98	1.21	-4.94	0.36	-3.90	0.58	-2.86	1.26
-5.96	1.15	-4.92	0.36	-3.88	0.65	-2.84	1.27
-5.94	1.10	-4.90	0.35	-3.86	0.77	-2.82	1.29
-5.92	1.06	-4.88	0.35	-3.84	0.96	-2.80	1.29
-5.90	1.02	-4.86	0.34	-3.82	1.15	-2.78	1.31
-5.88	0.98	-4.84	0.34	-3.80	1.28	-2.76	1.32
-5.86	0.95	-4.82	0.33	-3.78	1.31	-2.74	1.35
-5.84	0.91	-4.80	0.33	-3.76	1.32	-2.72	1.38
-5.82	0.88	-4.78	0.32	-3.74	1.33	-2.70	1.42
-5.80	0.85	-4.76	0.32	-3.72	1.32	-2.68	1.47
-5.78	0.82	-4.74	0.31	-3.70	1.32	-2.66	1.52
-5.76	0.80	-4.72	0.31	-3.68	1.31	-2.64	1.55
-5.74	0.77	-4.70	0.30	-3.66	1.31	-2.62	1.58
-5.72	0.75	-4.68	0.30	-3.64	1.29	-2.60	1.59
-5.70	0.73	-4.66	0.29	-3.62	1.26	-2.58	1.60
-5.68	0.71	-4.64	0.29	-3.60	1.23	-2.56	1.57
-5.66	0.69	-4.62	0.29	-3.58	1.19	-2.54	1.54
-5.64	0.67	-4.60	0.29	-3.56	1.14	-2.52	1.52
-5.62	0.65	-4.58	0.28	-3.54	1.11	-2.50	1.53
-5.60	0.64	-4.56	0.28	-3.52	1.09	-2.48	1.57
-5.58	0.62	-4.54	0.27	-3.50	1.07	-2.46	1.61
-5.56	0.61	-4.52	0.27	-3.48	1.06	-2.44	1.62
-5.54	0.59	-4.50	0.27	-3.46	1.06	-2.42	1.61
-5.52	0.58	-4.48	0.26	-3.44	1.05	-2.40	1.58
-5.50	0.57	-4.46	0.26	-3.42	1.05	-2.38	1.55

Table VI (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.53	-1.32	1.34	-0.28	0.29	0.76	0.00
-2.34	1.50	-1.30	1.35	-0.26	0.27	0.78	0.00
-2.32	1.48	-1.28	1.36	-0.24	0.25	0.80	0.00
-2.30	1.46	-1.26	1.36	-0.22	0.23	0.82	0.00
-2.28	1.46	-1.24	1.36	-0.20	0.22	0.84	0.00
-2.26	1.47	-1.22	1.35	-0.18	0.19	0.86	0.00
-2.24	1.49	-1.20	1.34	-0.16	0.17	0.88	0.00
-2.22	1.51	-1.18	1.34	-0.14	0.14	0.90	0.00
-2.20	1.53	-1.16	1.36	-0.12	0.12	0.92	0.00
-2.18	1.53	-1.14	1.38	-0.10	0.09	0.94	0.00
-2.16	1.53	-1.12	1.40	-0.08	0.07	0.96	0.00
-2.14	1.52	-1.10	1.12	-0.06	0.04	0.98	0.00
-2.12	1.51	-1.08	1.07	-0.04	0.02	1.00	0.00
-2.10	1.50	-1.06	1.03	-0.02	0.00	1.02	0.00
-2.08	1.49	-1.04	0.99	0.00	0.00	1.04	0.00
-2.06	1.47	-1.02	0.95	0.02	0.00	1.06	0.00
-2.04	1.45	-1.00	0.92	0.04	0.00	1.08	0.00
-2.02	1.43	-0.98	0.90	0.06	0.00	1.10	0.00
-2.00	1.42	-0.96	0.87	0.08	0.00	1.12	0.00
-1.98	1.41	-0.94	0.85	0.10	0.00	1.14	0.00
-1.96	1.41	-0.92	0.82	0.12	0.00	1.16	0.00
-1.94	1.41	-0.90	0.80	0.14	0.00	1.18	0.00
-1.92	1.41	-0.88	0.77	0.16	0.00	1.20	0.00
-1.90	1.42	-0.86	0.75	0.18	0.00	1.22	0.00
-1.88	1.43	-0.84	0.72	0.20	0.00	1.24	0.00
-1.86	1.44	-0.82	0.70	0.22	0.00	1.26	0.00
-1.84	1.44	-0.80	0.68	0.24	0.00	1.28	0.00
-1.82	1.44	-0.78	0.66	0.26	0.00	1.30	0.00
-1.80	1.44	-0.76	0.64	0.28	0.00	1.32	0.00
-1.78	1.44	-0.74	0.62	0.30	0.00	1.34	0.00
-1.76	1.43	-0.72	0.60	0.32	0.00	1.36	0.00
-1.74	1.42	-0.70	0.58	0.34	0.00	1.38	0.00
-1.72	1.42	-0.68	0.56	0.36	0.00	1.40	0.00
-1.70	1.41	-0.66	0.55	0.38	0.00	1.42	0.00
-1.68	1.40	-0.64	0.53	0.40	0.00	1.44	0.00
-1.66	1.39	-0.62	0.52	0.42	0.00	1.46	0.00
-1.64	1.38	-0.60	0.50	0.44	0.00	1.48	0.00
-1.62	1.38	-0.58	0.48	0.46	0.00	1.50	0.00
-1.60	1.37	-0.56	0.47	0.48	0.00	1.52	0.00
-1.58	1.37	-0.54	0.45	0.50	0.00	1.54	0.00
-1.56	1.37	-0.52	0.44	0.52	0.00	1.56	0.00
-1.54	1.38	-0.50	0.42	0.54	0.00	1.58	0.00
-1.52	1.39	-0.48	0.41	0.56	0.00	1.60	0.00
-1.50	1.40	-0.46	0.39	0.58	0.00	1.62	0.00
-1.48	1.40	-0.44	0.38	0.60	0.00	1.64	0.00
-1.46	1.38	-0.42	0.37	0.62	0.00	1.66	0.00
-1.44	1.36	-0.40	0.36	0.64	0.00	1.68	0.00
-1.42	1.34	-0.38	0.35	0.66	0.00	1.70	0.00
-1.40	1.33	-0.36	0.34	0.68	0.00	1.72	0.00
-1.38	1.32	-0.34	0.33	0.70	0.00	1.74	0.00
-1.36	1.33	-0.32	0.32	0.72	0.00	1.76	0.00
-1.34	1.33	-0.30	0.30	0.74	0.00	1.78	0.00

Table VI (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	0.00	2.84	1.32	3.88	0.74	4.92	2.10
1.82	0.01	2.86	1.35	3.90	0.74	4.94	2.06
1.84	0.02	2.88	1.39	3.92	0.75	4.96	2.03
1.86	0.04	2.90	1.44	3.94	0.76	4.98	2.00
1.88	0.07	2.92	1.49	3.96	0.77	5.00	2.07
1.90	0.09	2.94	1.56	3.98	0.78	5.02	2.14
1.92	0.11	2.96	1.65	4.00	0.78	5.04	2.01
1.94	0.14	2.98	1.76	4.02	0.78	5.06	1.82
1.96	0.16	3.00	1.81	4.04	0.78	5.08	1.70
1.98	0.18	3.02	1.85	4.06	0.78	5.10	1.59
2.00	0.21	3.04	1.89	4.08	0.79	5.12	1.49
2.02	0.23	3.06	1.91	4.10	0.80	5.14	1.42
2.04	0.26	3.08	1.94	4.12	0.82	5.16	1.36
2.06	0.29	3.10	1.95	4.14	0.87	5.18	1.28
2.08	0.31	3.12	1.95	4.16	0.92	5.20	1.29
2.10	0.33	3.14	1.94	4.18	1.00	5.22	1.30
2.12	0.34	3.16	1.93	4.20	1.05	5.24	1.26
2.14	0.36	3.18	1.95	4.22	1.03	5.26	1.22
2.16	0.38	3.20	1.98	4.24	1.02	5.28	1.18
2.18	0.41	3.22	2.05	4.26	1.01	5.30	1.14
2.20	0.43	3.24	2.07	4.28	1.00	5.32	1.11
2.22	0.46	3.26	1.57	4.30	0.98	5.34	1.09
2.24	0.48	3.28	1.45	4.32	0.97	5.36	1.08
2.26	0.51	3.30	1.41	4.34	0.97	5.38	1.07
2.28	0.53	3.32	1.40	4.36	0.97	5.40	1.06
2.30	0.55	3.34	1.39	4.38	0.97	5.42	1.05
2.32	0.57	3.36	1.38	4.40	0.98	5.44	1.03
2.34	0.59	3.38	1.36	4.42	0.98	5.46	1.02
2.36	0.62	3.40	1.35	4.44	0.97	5.48	1.01
2.38	0.64	3.42	1.34	4.46	0.96	5.50	1.01
2.40	0.67	3.44	1.33	4.48	0.96	5.52	1.01
2.42	0.69	3.46	1.33	4.50	0.97	5.54	1.01
2.44	0.72	3.48	1.32	4.52	0.97	5.56	1.01
2.46	0.74	3.50	1.29	4.54	0.97	5.58	1.02
2.48	0.76	3.52	1.27	4.56	0.98	5.60	1.02
2.50	0.79	3.54	1.24	4.58	0.98	5.62	1.01
2.52	0.81	3.56	1.20	4.60	1.02	5.64	1.01
2.54	0.84	3.58	1.17	4.62	1.09	5.66	1.01
2.56	0.87	3.60	1.12	4.64	1.18	5.68	1.02
2.58	0.89	3.62	1.07	4.66	1.29	5.70	1.03
2.60	0.92	3.64	1.01	4.68	1.41	5.72	1.05
2.62	0.95	3.66	0.97	4.70	1.53	5.74	1.09
2.64	0.99	3.68	0.94	4.72	1.64	5.76	1.12
2.66	1.02	3.70	0.92	4.74	1.81	5.78	1.17
2.68	1.05	3.72	0.91	4.76	2.20	5.80	1.21
2.70	1.09	3.74	0.91	4.78	2.54	5.82	1.27
2.72	1.13	3.76	0.87	4.80	2.62	5.84	1.32
2.74	1.16	3.78	0.84	4.82	2.49	5.86	1.36
2.76	1.20	3.80	0.82	4.84	2.33	5.88	1.39
2.78	1.23	3.82	0.79	4.86	2.24	5.90	1.42
2.80	1.26	3.84	0.77	4.88	2.21	5.92	1.44
2.82	1.29	3.86	0.75	4.90	2.15	5.94	1.46

Table VI (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	1.48	6.98	0.78	8.00	1.14	9.02	0.62
5.98	1.49	7.00	0.76	8.02	1.13	9.04	0.63
6.00	1.50	7.02	0.75	8.04	1.13	9.06	0.64
6.02	1.53	7.04	0.75	8.06	1.12	9.08	0.65
6.04	1.58	7.06	0.75	8.08	1.12	9.10	0.67
6.06	1.61	7.08	0.75	8.10	1.11	9.12	0.70
6.08	1.63	7.10	0.75	8.12	1.11	9.14	0.74
6.10	1.63	7.12	0.75	8.14	1.10	9.16	0.79
6.12	1.61	7.14	0.75	8.16	1.10	9.18	0.85
6.14	1.59	7.16	0.75	8.18	1.11	9.20	0.92
6.16	1.57	7.18	0.75	8.20	1.12	9.22	0.98
6.18	1.56	7.20	0.75	8.22	1.12	9.24	1.05
6.20	1.55	7.22	0.75	8.24	1.12	9.26	1.12
6.22	1.53	7.24	0.75	8.26	1.11	9.28	1.20
6.24	1.52	7.26	0.75	8.28	1.10	9.30	1.27
6.26	1.51	7.28	0.75	8.30	1.09	9.32	1.34
6.28	1.49	7.30	0.75	8.32	1.07	9.34	1.42
6.30	1.48	7.32	0.75	8.34	1.04	9.36	1.51
6.32	1.47	7.34	0.75	8.36	1.04	9.38	1.55
6.34	1.46	7.36	0.75	8.38	1.05	9.40	1.53
6.36	1.44	7.38	0.75	8.40	1.05	9.42	1.51
6.38	1.43	7.40	0.75	8.42	1.05	9.44	1.49
6.40	1.42	7.42	0.75	8.44	1.06	9.46	1.47
6.42	1.40	7.44	0.76	8.46	1.06	9.48	1.46
6.44	1.36	7.46	0.76	8.48	1.06	9.50	1.46
6.46	1.33	7.48	0.76	8.50	1.06	9.52	1.46
6.48	1.30	7.50	0.77	8.52	1.06	9.54	1.46
6.50	1.28	7.52	0.78	8.54	1.06	9.56	1.46
6.52	1.26	7.54	0.80	8.56	0.97	9.58	1.45
6.54	1.24	7.56	0.85	8.58	0.84	9.60	1.43
6.56	1.22	7.58	0.89	8.60	0.70	9.62	1.40
6.58	1.20	7.60	0.88	8.62	0.60	9.64	1.38
6.60	1.19	7.62	0.85	8.64	0.54	9.66	1.36
6.62	1.18	7.64	0.83	8.66	0.53	9.68	1.33
6.64	1.17	7.66	0.83	8.68	0.53	9.70	1.31
6.66	1.18	7.68	0.85	8.70	0.53	9.72	1.29
6.68	1.18	7.70	0.87	8.72	0.53	9.74	1.28
6.70	1.18	7.72	0.90	8.74	0.54	9.76	1.27
6.72	1.17	7.74	0.93	8.76	0.54	9.78	1.26
6.74	1.15	7.76	0.97	8.78	0.54	9.80	1.26
6.76	1.12	7.78	1.02	8.80	0.55	9.82	1.25
6.78	1.11	7.80	1.07	8.82	0.55	9.84	1.25
6.80	1.04	7.82	1.11	8.84	0.55	9.86	1.25
6.82	0.97	7.84	1.14	8.86	0.56	9.88	1.24
6.84	0.93	7.86	1.16	8.88	0.56	9.90	1.24
6.86	0.92	7.88	1.17	8.90	0.56	9.92	1.24
6.88	0.92	7.90	1.16	8.92	0.57	9.94	1.24
6.90	0.93	7.92	1.16	8.94	0.58	9.96	1.24
6.92	0.93	7.94	1.15	8.96	0.59	9.98	1.23
6.94	0.89	7.96	1.15	8.98	0.59	10.00	1.21
6.96	0.83	7.98	1.14	9.00	0.60	10.02	1.19

TABLE VII.

Energy eigenvalues for the first 8 bands of GaAs. The first column gives the value of $\vec{k}=\frac{4a}{\pi}(k_x, k_y, k_z)$, where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.35	0.00	0.00	0.00	1.21	3.78	3.78	3.7[illegible]
(1 0 0)	-12.29	-0.68	-0.20	-0.20	1.87	3.60	4.06	4.06
(1 1 0)	-12.23	-1.27	-0.40	-0.06	2.06	3.88	3.90	4.39
(1 1 1)	-12.17	-1.76	-0.23	-0.23	2.03	4.14	4.14	4.38
(2 0 0)	-12.11	-1.73	-0.65	-0.65	2.74	3.25	4.79	4.79
(2 1 0)	-12.06	-2.16	-0.86	-0.38	2.64	3.50	4.63	5.12
(2 1 1)	-12.00	-2.56	-0.64	-0.49	2.38	3.83	4.78	5.16
(2 2 0)	-11.89	-2.90	-1.34	-0.27	2.66	4.26	4.27	5.65
(2 2 1)	-11.83	-3.27	-1.01	-0.38	2.26	4.41	4.62	5.71
(2 2 2)	-11.67	-3.93	-0.66	-0.66	1.84	4.78	4.78	6.18
(3 0 0)	-11.82	-2.79	-1.17	-1.17	2.60	3.66	5.76	5.76
(3 1 0)	-11.77	-3.08	-1.39	-0.95	2.88	3.51	5.62	5.90
(3 1 1)	-11.72	-3.39	-1.13	-1.12	2.83	3.63	5.61	5.98
(3 2 0)	-11.61	-3.67	-1.88	-0.65	3.06	3.86	5.30	5.93
(3 2 1)	-11.56	-3.99	-1.55	-0.74	2.63	4.16	5.34	6.17
(3 2 2)	-11.41	-4.59	-1.03	-0.97	2.07	4.58	5.27	6.76
(3 3 0)	-11.35	-4.31	-2.42	-0.66	3.02	4.88	4.95	5.84
(3 3 1)	-11.30	-4.62	-2.06	-0.70	2.64	4.90	4.96	6.33
(3 3 2)	-11.17	-5.18	-1.39	-0.82	1.94	4.97	5.05	7.26
(3 3 3)	-10.97	-5.71	-1.00	-1.00	1.50	5.08	5.08	7.96
(4 0 0)	-11.43	-3.81	-1.66	-1.66	2.15	3.93	6.82	6.82
(4 1 0)	-11.38	-3.99	-1.88	-1.53	2.48	3.87	6.50	6.74
(4 1 1)	-11.33	-4.21	-1.79	-1.59	2.65	3.91	6.49	6.51
(4 2 0)	-11.23	-4.42	-2.37	-1.27	3.25	3.82	5.85	6.50
(4 2 1)	-11.19	-4.67	-2.10	-1.33	2.95	4.10	5.98	6.48
(4 2 2)	-11.06	-5.18	-1.70	-1.41	2.56	4.44	5.82	6.86
(4 3 0)	-11.00	-4.92	-2.89	-1.09	3.29	4.57	5.69	6.20
(4 3 1)	-10.97	-5.18	-2.56	-1.11	2.98	4.55	5.65	6.59
(4 3 2)	-10.87	-5.67	-1.89	-1.15	2.34	4.69	5.46	7.48
(4 3 3)	-10.73	-6.10	-1.35	-1.21	1.79	4.92	5.27	8.18
(4 4 0)	-10.70	-5.40	-3.34	-1.19	2.99	5.77	5.85	6.01
(4 4 1)	-10.68	-5.63	-2.99	-1.18	2.87	5.10	5.63	6.99
(4 4 2)	-10.64	-6.05	-2.26	-1.16	2.41	4.80	5.38	7.98
(4 4 3)	-10.58	-6.37	-1.50	-1.13	1.74	4.97	5.20	8.42
(4 4 4)	-10.56	-6.49	-1.12	-1.12	1.37	5.15	5.15	8.39
(5 0 0)	-10.96	-4.78	-2.08	-2.08	1.80	3.26	7.88	7.88
(5 1 0)	-10.92	-4.88	-2.29	-2.03	2.14	3.42	7.04	7.85

Table VII (Cont'd)

(5 1 1)	-10.88	-5.00	-2.37	-1.99	2.30	3.68	6.80	7.43
(5 2 0)	-10.79	-5.14	-2.75	-1.90	2.99	3.86	5.81	7.72
(5 2 1)	-10.76	-5.31	-2.64	-1.86	2.77	4.27	5.91	7.24
(5 2 2)	-10.67	-5.67	-2.49	-1.74	2.65	4.69	6.33	6.46
(5 3 0)	-10.60	-5.47	-3.25	-1.74	3.72	4.36	5.29	7.53
(5 3 1)	-10.58	-5.66	-3.00	-1.70	3.35	4.39	5.76	7.21
(5 3 2)	-10.54	-6.02	-2.51	-1.59	2.78	4.53	6.03	7.25
(5 3 3)	-10.49	-6.31	-2.12	-1.42	2.37	4.67	5.60	8.10
(5 4 0)	-10.37	-5.80	-3.65	-1.64	3.09	5.60	5.89	7.32
(5 4 1)	-10.38	-5.97	-3.35	-1.60	3.05	4.94	6.28	7.44
(5 4 2)	-10.40	-6.26	-2.69	-1.49	2.79	4.53	5.93	8.11
(5 4 3)	-10.47	-6.42	-1.99	-1.32	2.23	4.68	5.46	8.49
(5 5 0)	-10.13	-6.08	-3.89	-1.75	2.60	6.32	6.92	7.29
(5 5 1)	-10.17	-6.18	-3.61	-1.71	2.63	5.71	6.64	7.59
(5 5 2)	-10.29	-6.32	-2.94	-1.59	2.65	4.93	6.10	7.83
(6 0 0)	-10.45	-5.65	-2.38	-2.38	1.61	2.56	8.92	8.92
(6 1 0)	-10.42	-5.69	-2.58	-2.41	1.94	2.80	7.92	8.91
(6 1 1)	-10.39	-5.74	-2.81	-2.28	2.03	3.18	7.67	8.35
(6 2 0)	-10.33	-5.80	-3.01	-2.44	2.79	3.46	6.48	8.84
(6 2 1)	-10.31	-5.87	-3.11	-2.25	2.49	4.05	6.50	8.17
(6 2 2)	-10.27	-6.05	-3.19	-2.00	2.42	4.95	6.48	7.18
(6 3 0)	-10.20	-5.95	-3.46	-2.40	3.86	4.35	5.23	8.66
(6 3 1)	-10.21	-6.04	-3.37	-2.25	3.33	4.75	5.59	8.13
(6 3 2)	-10.23	-6.22	-3.18	-1.91	2.82	4.95	6.48	7.24
(6 3 3)	-10.29	-6.32	-2.94	-1.59	2.65	4.93	6.10	7.83
(6 4 0)	-10.06	-6.12	-3.79	-2.28	3.55	5.43	5.64	8.01
(6 4 1)	-10.10	-6.19	-3.60	-2.18	3.54	4.70	6.41	8.02
(6 4 2)	-10.21	-6.29	-3.16	-1.91	3.30	4.33	6.60	7.94
(6 5 0)	-9.93	-6.28	-3.93	-2.16	2.64	5.88	6.93	7.56
(6 5 1)	-10.01	-6.28	-3.72	-2.10	2.69	5.62	6.56	7.74
(6 6 0)	-9.83	-6.40	-3.84	-2.22	2.15	4.85	8.19	8.28
(7 0 0)	-9.99	-6.33	-2.57	-2.57	1.57	2.09	9.84	9.84
(7 1 0)	-9.98	-6.32	-2.74	-2.66	1.89	2.36	8.92	9.76
(7 1 1)	-9.97	-6.32	-3.07	-2.47	1.88	2.86	8.71	9.20
(7 2 0)	-9.93	-6.30	-3.12	-2.83	2.72	3.10	7.43	9.26
(7 2 1)	-9.94	-6.31	-3.42	-2.48	2.31	3.83	7.45	8.88
(7 2 2)	-9.96	-6.31	-3.67	-2.16	2.22	4.89	7.33	7.90
(7 3 0)	-9.88	-6.30	-3.49	-2.94	3.84	4.14	5.97	8.09
(7 3 1)	-9.91	-6.30	-3.64	-2.62	3.19	4.93	6.07	8.08
(7 3 2)	-10.01	-6.28	-3.72	-2.10	2.69	5.62	6.56	7.74
(7 4 0)	-9.82	-6.33	-3.72	-2.91	4.22	5.22	5.56	6.86
(7 4 1)	-9.90	-6.30	-3.71	-2.69	4.09	4.71	6.12	7.19
(7 5 0)	-9.79	-6.40	-3.74	-2.74	3.13	4.91	6.89	7.20
(8 0 0)	-9.79	-6.60	-2.64	-2.64	1.61	1.88	10.26	10.26
(8 1 0)	-9.79	-6.58	-2.78	-2.76	1.92	2.17	9.74	9.77
(8 1 1)	-9.78	-6.55	-3.16	-2.53	1.83	2.74	9.41	9.62
(8 2 0)	-9.77	-6.51	-3.10	-3.01	2.73	2.94	8.41	8.51
(8 2 1)	-9.78	-6.48	-3.53	-2.55	2.24	3.75	8.41	8.48
(8 2 2)	-9.83	-6.40	-3.84	-2.22	2.15	4.85	8.19	8.28
(8 3 0)	-9.75	-6.43	-3.40	-3.23	3.85	4.02	6.89	7.08
(8 3 1)	-9.79	-6.40	-3.74	-2.74	3.13	4.91	6.89	7.20
(8 4 0)	-9.74	-6.40	-3.52	-3.32	4.80	4.90	5.81	6.08

TABLE VIII.

Total density of electronic states, N(E), for GaAs. The energy E is in eV, and N(E) is in eV^{-1} for both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.00	-11.84	0.32	-11.26	0.55
-12.98	0.00	-12.40	0.00	-11.82	0.33	-11.24	0.56
-12.96	0.00	-12.38	0.00	-11.80	0.34	-11.22	0.57
-12.94	0.00	-12.36	0.00	-11.78	0.35	-11.20	0.58
-12.92	0.00	-12.34	0.00	-11.76	0.35	-11.18	0.59
-12.90	0.00	-12.32	0.02	-11.74	0.36	-11.16	0.60
-12.88	0.00	-12.30	0.05	-11.72	0.36	-11.14	0.61
-12.86	0.00	-12.28	0.09	-11.70	0.37	-11.12	0.62
-12.84	0.00	-12.26	0.12	-11.68	0.38	-11.10	0.63
-12.82	0.00	-12.24	0.13	-11.66	0.38	-11.08	0.65
-12.80	0.00	-12.22	0.13	-11.64	0.39	-11.06	0.66
-12.78	0.00	-12.20	0.14	-11.62	0.40	-11.04	0.67
-12.76	0.00	-12.18	0.15	-11.60	0.41	-11.02	0.68
-12.74	0.00	-12.16	0.17	-11.58	0.41	-11.00	0.70
-12.72	0.00	-12.14	0.18	-11.56	0.42	-10.98	0.71
-12.70	0.00	-12.12	0.20	-11.54	0.43	-10.96	0.73
-12.68	0.00	-12.10	0.22	-11.52	0.44	-10.94	0.74
-12.66	0.00	-12.08	0.23	-11.50	0.45	-10.92	0.76
-12.64	0.00	-12.06	0.23	-11.48	0.46	-10.90	0.77
-12.62	0.00	-12.04	0.23	-11.46	0.47	-10.88	0.79
-12.60	0.00	-12.02	0.24	-11.44	0.48	-10.86	0.81
-12.58	0.00	-12.00	0.25	-11.42	0.49	-10.84	0.83
-12.56	0.00	-11.98	0.26	-11.40	0.49	-10.82	0.85
-12.54	0.00	-11.96	0.26	-11.38	0.50	-10.80	0.87
-12.52	0.00	-11.94	0.27	-11.36	0.51	-10.78	0.90
-12.50	0.00	-11.92	0.28	-11.34	0.52	-10.76	0.92
-12.48	0.00	-11.90	0.29	-11.32	0.52	-10.74	0.95
-12.46	0.00	-11.88	0.30	-11.30	0.53	-10.72	0.98
-12.44	0.00	-11.86	0.31	-11.28	0.54	-10.70	1.02

Table VIII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	1.06	-9.64	0.00	-8.60	0.00	-7.56	0.00
-10.66	1.11	-9.62	0.00	-8.58	0.00	-7.54	0.00
-10.64	1.17	-9.60	0.00	-8.56	0.00	-7.52	0.00
-10.62	1.25	-9.58	0.00	-8.54	0.00	-7.50	0.00
-10.60	1.34	-9.56	0.00	-8.52	0.00	-7.48	0.00
-10.58	1.38	-9.54	0.00	-8.50	0.00	-7.46	0.00
-10.56	1.31	-9.52	0.00	-8.48	0.00	-7.44	0.00
-10.54	1.33	-9.50	0.00	-8.46	0.00	-7.42	0.00
-10.52	1.35	-9.48	0.00	-8.44	0.00	-7.40	0.00
-10.50	1.40	-9.46	0.00	-8.42	0.00	-7.38	0.00
-10.48	1.46	-9.44	0.00	-8.40	0.00	-7.36	0.00
-10.46	1.44	-9.42	0.00	-8.38	0.00	-7.34	0.00
-10.44	1.38	-9.40	0.00	-8.36	0.00	-7.32	0.00
-10.42	1.31	-9.38	0.00	-8.34	0.00	-7.30	0.00
-10.40	1.24	-9.36	0.00	-8.32	0.00	-7.28	0.00
-10.38	1.25	-9.34	0.00	-8.30	0.00	-7.26	0.00
-10.36	1.28	-9.32	0.00	-8.28	0.00	-7.24	0.00
-10.34	1.30	-9.30	0.00	-8.26	0.00	-7.22	0.00
-10.32	1.30	-9.28	0.00	-8.24	0.00	-7.20	0.00
-10.30	1.30	-9.26	0.00	-8.22	0.00	-7.18	0.00
-10.28	1.32	-9.24	0.00	-8.20	0.00	-7.16	0.00
-10.26	1.39	-9.22	0.00	-8.18	0.00	-7.14	0.00
-10.24	1.40	-9.20	0.00	-8.16	0.00	-7.12	0.00
-10.22	1.37	-9.18	0.00	-8.14	0.00	-7.10	0.00
-10.20	1.42	-9.16	0.00	-8.12	0.00	-7.08	0.00
-10.18	1.39	-9.14	0.00	-8.10	0.00	-7.06	0.00
-10.16	1.37	-9.12	0.00	-8.08	0.00	-7.04	0.00
-10.14	1.34	-9.10	0.00	-8.06	0.00	-7.02	0.00
-10.12	1.31	-9.08	0.00	-8.04	0.00	-7.00	0.00
-10.10	1.26	-9.06	0.00	-8.02	0.00	-6.98	0.00
-10.08	1.24	-9.04	0.00	-8.00	0.00	-6.96	0.00
-10.06	1.24	-9.02	0.00	-7.98	0.00	-6.94	0.00
-10.04	1.24	-9.00	0.00	-7.96	0.00	-6.92	0.00
-10.02	1.23	-8.98	0.00	-7.94	0.00	-6.90	0.00
-10.00	1.21	-8.96	0.00	-7.92	0.00	-6.88	0.00
-9.98	1.27	-8.94	0.00	-7.90	0.00	-6.86	0.00
-9.96	1.48	-8.92	0.00	-7.88	0.00	-6.84	0.00
-9.94	1.69	-8.90	0.00	-7.86	0.00	-6.82	0.00
-9.92	1.67	-8.88	0.00	-7.84	0.00	-6.80	0.00
-9.90	1.68	-8.86	0.00	-7.82	0.00	-6.78	0.00
-9.88	1.77	-8.84	0.00	-7.80	0.00	-6.76	0.00
-9.86	1.68	-8.82	0.00	-7.78	0.00	-6.74	0.00
-9.84	1.54	-8.80	0.00	-7.76	0.00	-6.72	0.00
-9.82	1.34	-8.78	0.00	-7.74	0.00	-6.70	0.00
-9.80	1.10	-8.76	0.00	-7.72	0.00	-6.68	0.00
-9.78	0.46	-8.74	0.00	-7.70	0.00	-6.66	0.00
-9.76	0.11	-8.72	0.00	-7.68	0.00	-6.64	0.00
-9.74	0.00	-8.70	0.00	-7.66	0.00	-6.62	0.00
-9.72	0.00	-8.68	0.00	-7.64	0.00	-6.60	0.00
-9.70	0.00	-8.66	0.00	-7.62	0.00	-6.58	0.03
-9.68	0.00	-8.64	0.00	-7.60	0.00	-6.56	0.09
-9.66	0.00	-8.62	0.00	-7.58	0.00	-6.54	0.15

Table VIII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	0.21	-5.48	0.56	-4.44	0.25	-3.40	1.12
-6.50	0.29	-5.46	0.54	-4.42	0.24	-3.38	1.12
-6.48	0.37	-5.44	0.53	-4.40	0.24	-3.36	1.11
-6.46	0.47	-5.42	0.53	-4.38	0.24	-3.34	1.11
-6.44	0.59	-5.40	0.52	-4.36	0.23	-3.32	1.11
-6.42	0.73	-5.38	0.51	-4.34	0.23	-3.30	1.10
-6.40	0.97	-5.36	0.50	-4.32	0.23	-3.28	1.10
-6.38	1.33	-5.34	0.49	-4.30	0.22	-3.26	1.10
-6.36	1.71	-5.32	0.48	-4.28	0.22	-3.24	1.10
-6.34	2.09	-5.30	0.47	-4.26	0.22	-3.22	1.10
-6.32	2.70	-5.28	0.46	-4.24	0.22	-3.20	1.10
-6.30	2.12	-5.26	0.46	-4.22	0.21	-3.18	1.09
-6.28	1.85	-5.24	0.45	-4.20	0.21	-3.16	1.09
-6.26	2.22	-5.22	0.44	-4.18	0.21	-3.14	1.09
-6.24	2.53	-5.20	0.43	-4.16	0.20	-3.12	1.08
-6.22	2.79	-5.18	0.42	-4.14	0.20	-3.10	1.08
-6.20	2.87	-5.16	0.42	-4.12	0.20	-3.08	1.08
-6.18	2.64	-5.14	0.41	-4.10	0.20	-3.06	1.09
-6.16	2.34	-5.12	0.40	-4.08	0.19	-3.04	1.09
-6.14	2.09	-5.10	0.40	-4.06	0.19	-3.02	1.10
-6.12	1.89	-5.08	0.39	-4.04	0.19	-3.00	1.11
-6.10	1.72	-5.06	0.38	-4.02	0.19	-2.98	1.12
-6.08	1.58	-5.04	0.38	-4.00	0.18	-2.96	1.13
-6.06	1.47	-5.02	0.37	-3.98	0.18	-2.94	1.14
-6.04	1.38	-5.00	0.36	-3.96	0.18	-2.92	1.17
-6.02	1.30	-4.98	0.36	-3.94	0.18	-2.90	1.22
-6.00	1.24	-4.96	0.35	-3.92	0.18	-2.88	1.24
-5.98	1.18	-4.94	0.35	-3.90	0.23	-2.86	1.26
-5.96	1.13	-4.92	0.34	-3.88	0.31	-2.84	1.27
-5.94	1.08	-4.90	0.34	-3.86	0.39	-2.82	1.29
-5.92	1.04	-4.88	0.33	-3.84	0.45	-2.80	1.31
-5.90	0.99	-4.86	0.33	-3.82	0.52	-2.78	1.33
-5.88	0.96	-4.84	0.32	-3.80	0.58	-2.76	1.34
-5.86	0.92	-4.82	0.32	-3.78	0.66	-2.74	1.35
-5.84	0.89	-4.80	0.31	-3.76	0.80	-2.72	1.37
-5.82	0.85	-4.78	0.31	-3.74	1.00	-2.70	1.39
-5.80	0.82	-4.76	0.30	-3.72	1.24	-2.68	1.42
-5.78	0.80	-4.74	0.30	-3.70	1.40	-2.66	1.46
-5.76	0.77	-4.72	0.30	-3.68	1.42	-2.64	1.51
-5.74	0.75	-4.70	0.29	-3.66	1.42	-2.62	1.56
-5.72	0.72	-4.68	0.29	-3.64	1.42	-2.60	1.60
-5.70	0.70	-4.66	0.28	-3.62	1.41	-2.58	1.63
-5.68	0.68	-4.64	0.28	-3.60	1.42	-2.56	1.65
-5.66	0.66	-4.62	0.28	-3.58	1.40	-2.54	1.65
-5.64	0.65	-4.60	0.27	-3.56	1.38	-2.52	1.62
-5.62	0.64	-4.58	0.27	-3.54	1.35	-2.50	1.59
-5.60	0.62	-4.56	0.27	-3.52	1.31	-2.48	1.57
-5.58	0.61	-4.54	0.26	-3.50	1.27	-2.46	1.59
-5.56	0.60	-4.52	0.26	-3.48	1.21	-2.44	1.63
-5.54	0.59	-4.50	0.26	-3.46	1.17	-2.42	1.67
-5.52	0.58	-4.48	0.25	-3.44	1.15	-2.40	1.67
-5.50	0.57	-4.46	0.25	-3.42	1.13	-2.38	1.65

Table VIII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.62	-1.32	1.36	-0.28	0.26	0.76	0.00
-2.34	1.59	-1.30	1.37	-0.26	0.24	0.78	0.00
-2.32	1.57	-1.28	1.37	-0.24	0.22	0.80	0.00
-2.30	1.54	-1.26	1.37	-0.22	0.21	0.82	0.00
-2.28	1.52	-1.24	1.37	-0.20	0.19	0.84	0.00
-2.26	1.50	-1.22	1.36	-0.18	0.17	0.86	0.00
-2.24	1.51	-1.20	1.35	-0.16	0.15	0.88	0.00
-2.22	1.53	-1.18	1.36	-0.14	0.13	0.90	0.00
-2.20	1.55	-1.16	1.39	-0.12	0.10	0.92	0.00
-2.18	1.58	-1.14	1.38	-0.10	0.08	0.94	0.00
-2.16	1.58	-1.12	1.16	-0.08	0.06	0.96	0.00
-2.14	1.57	-1.10	1.10	-0.06	0.04	0.98	0.00
-2.12	1.57	-1.08	1.05	-0.04	0.02	1.00	0.00
-2.10	1.56	-1.06	1.01	-0.02	0.00	1.02	0.00
-2.08	1.54	-1.04	0.98	0.00	0.00	1.04	0.00
-2.06	1.53	-1.02	0.94	0.02	0.00	1.06	0.00
-2.04	1.51	-1.00	0.91	0.04	0.00	1.08	0.00
-2.02	1.48	-0.98	0.89	0.06	0.00	1.10	0.00
-2.00	1.46	-0.96	0.86	0.08	0.00	1.12	0.00
-1.98	1.45	-0.94	0.83	0.10	0.00	1.14	0.00
-1.96	1.45	-0.92	0.80	0.12	0.00	1.16	0.00
-1.94	1.44	-0.90	0.77	0.14	0.00	1.18	0.00
-1.92	1.44	-0.88	0.74	0.16	0.00	1.20	0.00
-1.90	1.45	-0.86	0.72	0.18	0.00	1.22	0.00
-1.88	1.46	-0.84	0.69	0.20	0.00	1.24	0.00
-1.86	1.47	-0.82	0.67	0.22	0.00	1.26	0.00
-1.84	1.47	-0.80	0.65	0.24	0.00	1.28	0.00
-1.82	1.47	-0.78	0.63	0.26	0.00	1.30	0.00
-1.80	1.47	-0.76	0.61	0.28	0.00	1.32	0.00
-1.78	1.47	-0.74	0.59	0.30	0.00	1.34	0.00
-1.76	1.47	-0.72	0.57	0.32	0.00	1.36	0.00
-1.74	1.46	-0.70	0.55	0.34	0.00	1.38	0.00
-1.72	1.45	-0.68	0.53	0.36	0.00	1.40	0.00
-1.70	1.44	-0.66	0.52	0.38	0.00	1.42	0.01
-1.68	1.43	-0.64	0.50	0.40	0.00	1.44	0.01
-1.66	1.42	-0.62	0.48	0.42	0.00	1.46	0.02
-1.64	1.41	-0.60	0.47	0.44	0.00	1.48	0.02
-1.62	1.40	-0.58	0.45	0.46	0.00	1.50	0.03
-1.60	1.39	-0.56	0.44	0.48	0.00	1.52	0.04
-1.58	1.39	-0.54	0.42	0.50	0.00	1.54	0.05
-1.56	1.39	-0.52	0.41	0.52	0.00	1.56	0.06
-1.54	1.40	-0.50	0.40	0.54	0.00	1.58	0.07
-1.52	1.41	-0.48	0.38	0.56	0.00	1.60	0.09
-1.50	1.42	-0.46	0.37	0.58	0.00	1.62	0.12
-1.48	1.42	-0.44	0.36	0.60	0.00	1.64	0.15
-1.46	1.40	-0.42	0.35	0.62	0.00	1.66	0.19
-1.44	1.38	-0.40	0.34	0.64	0.00	1.68	0.22
-1.42	1.36	-0.38	0.32	0.66	0.00	1.70	0.26
-1.40	1.35	-0.36	0.31	0.68	0.00	1.72	0.29
-1.38	1.34	-0.34	0.30	0.70	0.00	1.74	0.33
-1.36	1.34	-0.32	0.29	0.72	0.00	1.76	0.36
-1.34	1.35	-0.30	0.27	0.74	0.00	1.78	0.38

Table VIII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	0.42	2.84	1.77	3.88	1.16	4.92	1.35
1.82	0.45	2.86	1.67	3.90	1.12	4.94	1.28
1.84	0.48	2.88	1.58	3.92	1.02	4.96	1.21
1.86	0.50	2.90	1.51	3.94	1.01	4.98	1.19
1.88	0.52	2.92	1.45	3.96	1.01	5.00	1.12
1.90	0.54	2.94	1.42	3.98	1.01	5.02	1.06
1.92	0.56	2.96	1.41	4.00	1.01	5.04	1.00
1.94	0.58	2.98	1.40	4.02	1.01	5.06	0.96
1.96	0.61	3.00	1.39	4.04	1.00	5.08	0.95
1.98	0.63	3.02	1.37	4.06	0.99	5.10	0.96
2.00	0.66	3.04	1.34	4.08	0.98	5.12	0.99
2.02	0.70	3.06	1.30	4.10	0.97	5.14	1.02
2.04	0.73	3.08	1.25	4.12	0.96	5.16	1.07
2.06	0.76	3.10	1.20	4.14	0.95	5.18	1.14
2.08	0.80	3.12	1.15	4.16	0.95	5.20	1.23
2.10	0.83	3.14	1.10	4.18	0.95	5.22	1.13
2.12	0.86	3.16	1.06	4.20	0.94	5.24	1.06
2.14	0.89	3.18	1.01	4.22	0.94	5.26	1.02
2.16	0.92	3.20	0.97	4.24	0.95	5.28	1.02
2.18	0.94	3.22	0.93	4.26	0.97	5.30	1.04
2.20	0.96	3.24	0.90	4.28	0.99	5.32	1.05
2.22	0.98	3.26	0.87	4.30	1.00	5.34	1.06
2.24	1.00	3.28	0.84	4.32	1.02	5.36	1.07
2.26	1.01	3.30	0.82	4.34	1.04	5.38	1.09
2.28	1.03	3.32	0.82	4.36	1.07	5.40	1.10
2.30	1.05	3.34	0.85	4.38	1.14	5.42	1.11
2.32	1.07	3.36	0.84	4.40	1.23	5.44	1.11
2.34	1.10	3.38	0.83	4.42	1.32	5.46	1.10
2.36	1.13	3.40	0.82	4.44	1.41	5.48	1.10
2.38	1.16	3.42	0.82	4.46	1.49	5.50	1.12
2.40	1.19	3.44	0.81	4.48	1.57	5.52	1.13
2.42	1.23	3.46	0.81	4.50	1.65	5.54	1.15
2.44	1.27	3.48	0.81	4.52	1.73	5.56	1.16
2.46	1.31	3.50	0.81	4.54	1.86	5.58	1.20
2.48	1.35	3.52	0.80	4.56	1.92	5.60	1.24
2.50	1.40	3.54	0.79	4.58	1.97	5.62	1.27
2.52	1.45	3.56	0.80	4.60	2.00	5.64	1.30
2.54	1.50	3.58	0.81	4.62	2.03	5.66	1.33
2.56	1.55	3.60	0.83	4.64	2.03	5.68	1.39
2.58	1.61	3.62	0.84	4.66	2.03	5.70	1.47
2.60	1.68	3.64	0.86	4.68	1.97	5.72	1.53
2.62	1.76	3.66	0.87	4.70	2.16	5.74	1.57
2.64	1.86	3.68	0.88	4.72	2.06	5.76	1.59
2.66	1.94	3.70	0.89	4.74	1.97	5.78	1.61
2.68	2.01	3.72	0.90	4.76	1.92	5.80	1.64
2.70	2.07	3.74	0.91	4.78	1.77	5.82	1.68
2.72	2.13	3.76	0.93	4.80	1.73	5.84	1.70
2.74	2.19	3.78	0.95	4.82	1.68	5.86	1.68
2.76	2.23	3.80	0.98	4.84	1.62	5.88	1.65
2.78	2.22	3.82	1.01	4.86	1.57	5.90	1.62
2.80	2.01	3.84	1.05	4.88	1.50	5.92	1.60
2.82	1.87	3.86	1.12	4.90	1.43	5.94	1.57

Table VIII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	1.55	6.98	0.79	8.00	1.16	9.02	0.66
5.98	1.54	7.00	0.79	8.02	1.19	9.04	0.66
6.00	1.52	7.02	0.79	8.04	1.09	9.06	0.66
6.02	1.51	7.04	0.80	8.06	0.97	9.08	0.66
6.04	1.50	7.06	0.80	8.08	0.88	9.10	0.66
6.06	1.49	7.08	0.80	8.10	0.81	9.12	0.66
6.08	1.47	7.10	0.81	8.12	0.76	9.14	0.66
6.10	1.46	7.12	0.81	8.14	0.74	9.16	0.66
6.12	1.45	7.14	0.81	8.16	0.73	9.18	0.66
6.14	1.44	7.16	0.82	8.18	0.72	9.20	0.66
6.16	1.43	7.18	0.82	8.20	0.71	9.22	0.66
6.18	1.42	7.20	0.82	8.22	0.71	9.24	0.66
6.20	1.41	7.22	0.90	8.24	0.70	9.26	0.66
6.22	1.40	7.24	1.44	8.26	0.69	9.28	0.66
6.24	1.39	7.26	0.84	8.28	0.69	9.30	0.66
6.26	1.38	7.28	0.85	8.30	0.68	9.32	0.66
6.28	1.37	7.30	0.87	8.32	0.68	9.34	0.66
6.30	1.36	7.32	0.90	8.34	0.67	9.36	0.67
6.32	1.35	7.34	0.93	8.36	0.67	9.38	0.67
6.34	1.35	7.36	0.97	8.38	0.66	9.40	0.67
6.36	1.35	7.38	1.01	8.40	0.64	9.42	0.67
6.38	1.34	7.40	1.05	8.42	0.54	9.44	0.68
6.40	1.33	7.42	1.10	8.44	0.49	9.46	0.69
6.42	1.31	7.44	1.15	8.46	0.46	9.48	0.69
6.44	1.23	7.46	1.20	8.48	0.43	9.50	0.70
6.46	1.24	7.48	1.24	8.50	0.43	9.52	0.71
6.48	1.25	7.50	1.26	8.52	0.43	9.54	0.72
6.50	1.20	7.52	1.28	8.54	0.42	9.56	0.74
6.52	1.10	7.54	1.29	8.56	0.42	9.58	0.75
6.54	1.02	7.56	1.30	8.58	0.42	9.60	0.77
6.56	0.95	7.58	1.29	8.60	0.42	9.62	0.80
6.58	0.91	7.60	1.28	8.62	0.42	9.64	0.85
6.60	0.87	7.62	1.26	8.64	0.43	9.66	0.94
6.62	0.85	7.64	1.25	8.66	0.44	9.68	1.06
6.64	0.85	7.66	1.24	8.68	0.44	9.70	1.05
6.66	0.84	7.68	1.23	8.70	0.45	9.72	1.03
6.68	0.84	7.70	1.21	8.72	0.46	9.74	1.11
6.70	0.83	7.72	1.20	8.74	0.48	9.76	1.19
6.72	0.83	7.74	1.18	8.76	0.49	9.78	1.21
6.74	0.82	7.76	1.17	8.78	0.51	9.80	1.27
6.76	0.82	7.78	1.16	8.80	0.53	9.82	1.40
6.78	0.81	7.80	1.15	8.82	0.55	9.84	1.81
6.80	0.81	7.82	1.14	8.84	0.58	9.86	1.81
6.82	0.80	7.84	1.13	8.86	0.60	9.88	1.51
6.84	0.80	7.86	1.12	8.88	0.64	9.90	1.53
6.86	0.79	7.88	1.11	8.90	0.66	9.92	1.58
6.88	0.79	7.90	1.11	8.92	0.67	9.94	1.63
6.90	0.79	7.92	1.11	8.94	0.67	9.96	1.71
6.92	0.79	7.94	1.11	8.96	0.66	9.98	1.79
6.94	0.79	7.96	1.11	8.98	0.66	10.00	1.87
6.96	0.79	7.98	1.13	9.00	0.66	10.02	1.99

TABLE IX.

Energy eigenvalues for the first 13 bands of ZnS. The first column gives the value of $\vec{k}\frac{4a}{\pi}$ (k_x, k_y, k_z), where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.89	-6.78	-6.78	-6.78	-6.27	-6.27	0.00	0.00	0.00	2.26	7.04	7.04	7.04
(1 0 0)	-12.85	-6.78	-6.77	-6.77	-6.28	-6.27	-0.35	-0.11	-0.11	2.64	6.80	7.20	7.20
(1 1 0)	-12.81	-6.77	-6.77	-6.76	-6.28	-6.27	-0.74	-0.22	-0.04	2.90	6.80	7.17	7.34
(1 1 1)	-12.78	-6.77	-6.76	-6.76	-6.28	-6.28	-1.09	-0.14	-0.14	3.07	6.84	7.30	7.30
(2 0 0)	-12.74	-6.78	-6.74	-6.74	-6.29	-6.26	-1.04	-0.40	-0.40	3.42	6.25	7.67	7.67
(2 1 0)	-12.70	-6.77	-6.74	-6.74	-6.29	-6.27	-1.38	-0.52	-0.23	3.53	6.39	7.56	7.71
(2 1 1)	-12.67	-6.76	-6.74	-6.73	-6.29	-6.27	-1.70	-0.41	-0.29	3.57	6.55	7.58	7.67
(2 2 0)	-12.60	-6.75	-6.73	-6.72	-6.29	-6.26	-1.97	-0.84	-0.19	3.88	6.57	7.52	7.80
(2 2 1)	-12.56	-6.74	-6.73	-6.72	-6.29	-6.27	-2.27	-0.63	-0.26	3.78	6.81	7.55	7.76
(2 2 2)	-12.47	-6.71	-6.71	-6.70	-6.28	-6.28	-2.82	-0.45	-0.45	3.71	7.24	7.67	7.67
(3 0 0)	-12.56	-6.78	-6.70	-6.70	-6.31	-6.25	-1.80	-0.79	-0.79	4.22	5.61	8.35	8.35
(3 1 0)	-12.52	-6.77	-6.70	-6.70	-6.30	-6.25	-2.06	-0.92	-0.62	4.26	5.80	8.15	8.27
(3 1 1)	-12.49	-6.76	-6.70	-6.69	-6.30	-6.25	-2.34	-0.77	-0.69	4.22	6.04	8.01	8.23
(3 2 0)	-12.43	-6.73	-6.69	-6.68	-6.30	-6.25	-2.57	-1.25	-0.43	4.43	6.29	7.80	8.06
(3 2 1)	-12.41	-6.72	-6.69	-6.67	-6.29	-6.26	-2.85	-1.02	-0.49	4.23	6.60	7.79	8.02
(3 2 2)	-12.33	-6.70	-6.69	-6.63	-6.28	-6.26	-3.37	-0.73	-0.62	3.95	7.16	7.80	7.91
(3 3 0)	-12.29	-6.69	-6.68	-6.64	-6.30	-6.25	-3.08	-1.68	-0.47	4.74	6.76	7.49	7.99
(3 3 1)	-12.27	-6.69	-6.68	-6.62	-6.29	-6.25	-3.37	-1.40	-0.50	4.44	7.07	7.61	7.88
(3 3 2)	-12.21	-6.68	-6.68	-6.55	-6.28	-6.26	-3.88	-0.95	-0.59	3.95	7.50	7.69	7.97
(3 3 3)	-12.13	-6.68	-6.68	-6.45	-6.27	-6.27	-4.37	-0.73	-0.73	3.71	7.62	7.62	8.34
(4 0 0)	-12.33	-6.77	-6.64	-6.64	-6.32	-6.24	-2.54	-1.21	-1.21	4.70	5.11	9.19	9.19
(4 1 0)	-12.31	-6.75	-6.65	-6.64	-6.31	-6.24	-2.72	-1.35	-1.09	4.80	5.28	8.51	9.13
(4 1 1)	-12.28	-6.74	-6.65	-6.63	-6.31	-6.24	-2.94	-1.21	-1.16	4.71	5.60	8.29	8.92
(4 2 0)	-12.23	-6.71	-6.65	-6.61	-6.30	-6.24	-3.12	-1.68	-0.87	5.02	5.82	7.72	8.94
(4 2 1)	-12.21	-6.70	-6.65	-6.60	-6.29	-6.24	-3.37	-1.45	-0.92	4.72	6.20	7.79	8.70
(4 2 2)	-12.16	-6.69	-6.65	-6.55	-6.28	-6.25	-3.84	-1.10	-1.04	4.39	6.73	7.96	8.31
(4 3 0)	-12.13	-6.66	-6.65	-6.55	-6.29	-6.24	-3.55	-2.10	-0.77	5.18	6.60	7.28	8.64
(4 3 1)	-12.11	-6.67	-6.65	-6.52	-6.29	-6.24	-3.82	-1.81	-0.79	4.83	6.77	7.57	8.45
(4 3 2)	-12.08	-6.67	-6.66	-6.45	-6.27	-6.24	-4.30	-1.29	-0.83	4.27	7.03	7.94	8.32
(4 3 3)	-12.03	-6.67	-6.66	-6.33	-6.25	-6.25	-4.75	-0.92	-0.90	3.89	7.27	7.74	8.66
(4 4 0)	-12.00	-6.65	-6.63	-6.44	-6.29	-6.22	-3.93	-2.50	-0.88	5.24	6.88	7.59	8.55
(4 4 1)	-11.99	-6.65	-6.64	-6.41	-6.29	-6.22	-4.20	-2.18	-0.87	4.98	6.79	8.02	8.34
(4 4 2)	-11.98	-6.66	-6.65	-6.34	-6.27	-6.21	-4.66	-1.58	-0.86	4.41	6.95	7.94	8.62
(4 4 3)	-11.97	-6.66	-6.66	-6.27	-6.26	-6.16	-5.04	-1.05	-0.84	3.87	7.30	7.62	8.88
(4 4 4)	-11.97	-6.66	-6.66	-6.26	-6.26	-6.11	-5.20	-0.84	-0.84	3.65	7.51	7.51	8.87
(5 0 0)	-12.09	-6.74	-6.58	-6.58	-6.30	-6.22	-3.23	-1.60	-1.60	4.37	5.07	9.72	10.10
(5 1 0)	-12.07	-6.72	-6.59	-6.57	-6.29	-6.23	-3.34	-1.73	-1.54	4.59	5.19	8.87	10.08

Table IX (Cont'd)

(5 1 1)	-12.06	-6.71	-6.59	-6.57	-6.28	-6.23	-3.49	-1.73	-1.53	4.63	5.44	8.60	9.70
(5 2 0)	-12.02	-6.68	-6.61	-6.54	-6.27	-6.23	-3.62	-2.06	-1.39	5.18	5.53	7.84	9.95
(5 2 1)	-12.01	-6.68	-6.60	-6.52	-6.26	-6.23	-3.81	-1.91	-1.39	4.88	5.97	7.91	9.47
(5 2 2)	-11.98	-6.67	-6.61	-6.47	-6.24	-6.23	-4.20	-1.73	-1.33	4.69	6.43	8.11	8.85
(5 3 0)	-11.95	-6.64	-6.62	-6.46	-6.27	-6.21	-3.93	-2.85	-1.26	5.68	6.12	7.23	9.66
(5 3 1)	-11.95	-6.65	-6.62	-6.44	-6.26	-6.21	-4.17	-2.20	-1.24	5.25	6.33	7.58	9.31
(5 3 2)	-11.94	-6.66	-6.62	-6.38	-6.25	-6.18	-4.59	-1.76	-1.18	4.72	6.57	8.18	8.77
(5 3 3)	-11.93	-6.66	-6.64	-6.32	-6.25	-6.12	-4.94	-1.45	-1.07	4.35	6.80	8.06	8.89
(5 4 0)	-11.87	-6.64	-6.60	-6.36	-6.28	-6.16	-4.22	-2.81	-1.22	5.35	6.74	7.73	9.34
(5 4 1)	-11.87	-6.64	-6.61	-6.35	-6.27	-6.15	-4.46	-2.50	-1.19	5.22	6.55	8.07	9.12
(5 4 2)	-11.89	-6.65	-6.62	-6.32	-6.26	-6.10	-4.85	-1.91	-1.12	4.77	6.58	8.22	8.96
(5 4 3)	-11.93	-6.66	-6.64	-6.29	-6.26	-6.08	-5.09	-1.37	-0.99	4.22	6.92	7.88	9.02
(5 5 0)	-11.79	-6.64	-6.57	-6.34	-6.27	-6.06	-4.40	-3.07	-1.35	4.95	6.97	8.66	9.31
(5 5 1)	-11.80	-6.64	-6.58	-6.33	-6.27	-6.05	-4.61	-2.75	-1.31	4.94	6.77	8.77	9.06
(5 5 2)	-11.85	-6.65	-6.61	-6.33	-6.26	-6.05	-4.88	-2.12	-1.22	4.79	6.58	8.54	8.91
(6 0 0)	-11.88	-6.70	-6.52	-6.52	-6.25	-6.21	-3.84	-1.92	-1.92	3.97	4.86	10.13	11.02
(6 1 0)	-11.87	-6.69	-6.53	-6.51	-6.23	-6.22	-3.89	-2.04	-1.91	4.19	5.04	9.49	11.03
(6 1 1)	-11.86	-6.68	-6.53	-6.51	-6.22	-6.21	-3.97	-2.18	-1.82	4.28	5.30	9.23	10.49
(6 2 0)	-11.84	-6.65	-6.56	-6.47	-6.23	-6.18	-4.03	-2.34	-1.89	4.82	5.52	8.39	10.91
(6 2 1)	-11.84	-6.65	-6.56	-6.47	-6.23	-6.16	-4.15	-2.37	-1.76	4.66	5.88	8.43	10.23
(6 2 2)	-11.83	-6.65	-6.57	-6.42	-6.24	-6.12	-4.43	-2.37	-1.57	4.65	6.39	8.48	9.47
(6 3 0)	-11.80	-6.62	-6.58	-6.41	-6.25	-6.12	-4.22	-2.69	-1.82	5.68	6.04	7.47	10.52
(6 3 1)	-11.81	-6.63	-6.58	-6.40	-6.25	-6.10	-4.38	-2.57	-1.72	5.33	6.28	7.76	10.10
(6 3 2)	-11.82	-6.64	-6.59	-6.36	-6.25	-6.06	-4.68	-2.34	-1.46	4.95	6.48	8.35	9.34
(6 3 3)	-11.85	-6.65	-6.61	-6.33	-6.26	-6.05	-4.88	-2.12	-1.22	4.79	6.58	8.54	8.91
(6 4 0)	-11.76	-6.62	-6.57	-6.35	-6.28	-6.04	-4.38	-2.99	-1.73	5.60	6.58	7.74	10.05
(6 4 1)	-11.78	-6.63	-6.58	-6.34	-6.28	-6.03	-4.55	-2.76	-1.66	5.58	6.31	8.02	9.92
(6 4 2)	-11.82	-6.64	-6.60	-6.33	-6.27	-6.03	-4.79	-2.32	-1.44	5.26	6.26	8.29	9.45
(6 5 0)	-11.72	-6.63	-6.54	-6.35	-6.27	-5.98	-4.47	-3.16	-1.68	4.86	6.83	8.83	9.86
(6 5 1)	-11.75	-6.64	-6.56	-6.36	-6.26	-5.99	-4.58	-2.89	-1.63	4.91	6.70	8.60	9.82
(6 6 0)	-11.69	-6.64	-6.52	-6.40	-6.25	-5.97	-4.48	-3.12	-1.78	4.41	6.40	9.71	10.35
(7 0 0)	-11.72	-6.68	-6.48	-6.48	-6.21	-6.14	-4.31	-2.12	-2.12	3.71	4.66	10.68	11.81
(7 1 0)	-11.72	-6.67	-6.49	-6.47	-6.21	-6.12	-4.32	-2.23	-2.17	3.92	4.86	10.25	11.52
(7 1 1)	-11.72	-6.66	-6.49	-6.47	-6.22	-6.10	-4.33	-2.48	-2.02	4.02	5.14	10.03	11.19
(7 2 0)	-11.71	-6.64	-6.52	-6.44	-6.23	-6.06	-4.34	-2.49	-2.27	4.55	5.43	9.22	10.85
(7 2 1)	-11.72	-6.64	-6.52	-6.43	-6.23	-6.05	-4.38	-2.73	-1.99	4.43	5.79	9.24	10.66
(7 2 2)	-11.73	-6.64	-6.53	-6.40	-6.24	-6.01	-4.49	-2.90	-1.73	4.48	6.40	9.16	10.07
(7 3 0)	-11.70	-6.62	-6.54	-6.39	-6.26	-5.99	-4.38	-2.78	-2.32	5.41	6.15	8.13	10.01
(7 3 1)	-11.71	-6.62	-6.54	-6.38	-6.26	-5.99	-4.45	-2.88	-2.05	5.16	6.41	8.28	10.04
(7 3 2)	-11.75	-6.64	-6.56	-6.36	-6.26	-5.99	-4.58	-2.89	-1.63	4.91	6.70	8.60	9.82
(7 4 0)	-11.69	-6.61	-6.54	-6.34	-6.29	-5.95	-4.42	-2.98	-2.28	5.82	6.57	7.89	9.33
(7 4 1)	-11.71	-6.62	-6.55	-6.34	-6.29	-5.96	-4.49	-2.92	-2.09	5.81	6.37	7.94	9.66
(7 5 0)	-11.68	-6.62	-6.52	-6.37	-6.27	-5.95	-4.45	-3.02	-2.16	5.08	6.44	8.86	9.44
(8 0 0)	-11.67	-6.67	-6.46	-6.46	-6.20	-6.08	-4.49	-2.19	-2.19	3.61	4.58	10.92	12.15
(8 1 0)	-11.67	-6.66	-6.48	-6.46	-6.21	-6.06	-4.49	-2.28	-2.27	3.83	4.80	10.68	11.52
(8 1 1)	-11.67	-6.65	-6.48	-6.45	-6.22	-6.04	-4.48	-2.58	-2.08	3.93	5.09	10.49	11.50
(8 2 0)	-11.67	-6.64	-6.50	-6.43	-6.23	-6.00	-4.47	-2.48	-2.46	4.45	5.39	10.03	10.22
(8 2 1)	-11.67	-6.64	-6.50	-6.42	-6.23	-5.99	-4.47	-2.87	-2.06	4.34	5.75	9.96	10.30
(8 2 2)	-11.69	-6.64	-6.52	-6.40	-6.25	-5.97	-4.48	-3.12	-1.78	4.41	6.40	9.71	10.35
(8 3 0)	-11.66	-6.62	-6.52	-6.38	-6.27	-5.94	-4.44	-2.67	-2.64	5.31	6.16	8.89	9.20
(8 3 1)	-11.68	-6.62	-6.52	-6.37	-6.27	-5.95	-4.45	-3.02	-2.16	5.08	6.44	8.86	9.44
(8 4 0)	-11.66	-6.61	-6.53	-6.34	-6.30	-5.92	-4.42	-2.76	-2.71	5.87	6.63	8.17	8.70

TABLE X.

Total density of electronic states, N(E), for ZnS. The energy E is in eV, and N(E) is in eV^{-1} for the both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.76	-11.84	3.48	-11.26	0.00
-12.98	0.00	-12.40	0.79	-11.82	3.91	-11.24	0.00
-12.96	0.00	-12.38	0.83	-11.80	4.00	-11.22	0.00
-12.94	0.00	-12.36	0.87	-11.78	3.86	-11.20	0.00
-12.92	0.00	-12.34	0.91	-11.76	3.78	-11.18	0.00
-12.90	0.00	-12.32	0.95	-11.74	3.76	-11.16	0.00
-12.88	0.01	-12.30	0.99	-11.72	4.63	-11.14	0.00
-12.86	0.07	-12.28	1.04	-11.70	5.98	-11.12	0.00
-12.84	0.16	-12.26	1.09	-11.68	3.96	-11.10	0.00
-12.82	0.20	-12.24	1.15	-11.66	0.00	-11.08	0.00
-12.80	0.21	-12.22	1.21	-11.64	0.00	-11.06	0.00
-12.78	0.24	-12.20	1.27	-11.62	0.00	-11.04	0.00
-12.76	0.28	-12.18	1.34	-11.60	0.00	-11.02	0.00
-12.74	0.32	-12.16	1.41	-11.58	0.00	-11.00	0.00
-12.72	0.36	-12.14	1.49	-11.56	0.00	-10.98	0.00
-12.70	0.37	-12.12	1.58	-11.54	0.00	-10.96	0.00
-12.68	0.39	-12.10	1.68	-11.52	0.00	-10.94	0.00
-12.66	0.41	-12.08	1.79	-11.50	0.00	-10.92	0.00
-12.64	0.44	-12.06	1.94	-11.48	0.00	-10.90	0.00
-12.62	0.47	-12.04	2.12	-11.46	0.00	-10.88	0.00
-12.60	0.49	-12.02	2.34	-11.44	0.00	-10.86	0.00
-12.58	0.52	-12.00	2.68	-11.42	0.00	-10.84	0.00
-12.56	0.55	-11.98	3.20	-11.40	0.00	-10.82	0.00
-12.54	0.59	-11.96	3.17	-11.38	0.00	-10.80	0.00
-12.52	0.61	-11.94	3.23	-11.36	0.00	-10.78	0.00
-12.50	0.64	-11.92	3.60	-11.34	0.00	-10.76	0.00
-12.48	0.66	-11.90	3.34	-11.32	0.00	-10.74	0.00
-12.46	0.70	-11.88	3.20	-11.30	0.00	-10.72	0.00
-12.44	0.73	-11.86	3.34	-11.28	0.00	-10.70	0.00

Table X (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	0.00	-9.64	0.00	-8.60	0.00	-7.56	0.00
-10.66	0.00	-9.62	0.00	-8.58	0.00	-7.54	0.00
-10.64	0.00	-9.60	0.00	-8.56	0.00	-7.52	0.00
-10.62	0.00	-9.58	0.00	-8.54	0.00	-7.50	0.00
-10.60	0.00	-9.56	0.00	-8.52	0.00	-7.48	0.00
-10.58	0.00	-9.54	0.00	-8.50	0.00	-7.46	0.00
-10.56	0.00	-9.52	0.00	-8.48	0.00	-7.44	0.00
-10.54	0.00	-9.50	0.00	-8.46	0.00	-7.42	0.00
-10.52	0.00	-9.48	0.00	-8.44	0.00	-7.40	0.00
-10.50	0.00	-9.46	0.00	-8.42	0.00	-7.38	0.00
-10.48	0.00	-9.44	0.00	-8.40	0.00	-7.36	0.00
-10.46	0.00	-9.42	0.00	-8.38	0.00	-7.34	0.00
-10.44	0.00	-9.40	0.00	-8.36	0.00	-7.32	0.00
-10.42	0.00	-9.38	0.00	-8.34	0.00	-7.30	0.00
-10.40	0.00	-9.36	0.00	-8.32	0.00	-7.28	0.00
-10.38	0.00	-9.34	0.00	-8.30	0.00	-7.26	0.00
-10.36	0.00	-9.32	0.00	-8.28	0.00	-7.24	0.00
-10.34	0.00	-9.30	0.00	-8.26	0.00	-7.22	0.00
-10.32	0.00	-9.28	0.00	-8.24	0.00	-7.20	0.00
-10.30	0.00	-9.26	0.00	-8.22	0.00	-7.18	0.00
-10.28	0.00	-9.24	0.00	-8.20	0.00	-7.16	0.00
-10.26	0.00	-9.22	0.00	-8.18	0.00	-7.14	0.00
-10.24	0.00	-9.20	0.00	-8.16	0.00	-7.12	0.00
-10.22	0.00	-9.18	0.00	-8.14	0.00	-7.10	0.00
-10.20	0.00	-9.16	0.00	-8.12	0.00	-7.08	0.00
-10.18	0.00	-9.14	0.00	-8.10	0.00	-7.06	0.00
-10.16	0.00	-9.12	0.00	-8.08	0.00	-7.04	0.00
-10.14	0.00	-9.10	0.00	-8.06	0.00	-7.02	0.00
-10.12	0.00	-9.08	0.00	-8.04	0.00	-7.00	0.00
-10.10	0.00	-9.06	0.00	-8.02	0.00	-6.98	0.00
-10.08	0.00	-9.04	0.00	-8.00	0.00	-6.96	0.00
-10.06	0.00	-9.02	0.00	-7.98	0.00	-6.94	0.00
-10.04	0.00	-9.00	0.00	-7.96	0.00	-6.92	0.00
-10.02	0.00	-8.98	0.00	-7.94	0.00	-6.90	0.00
-10.00	0.00	-8.96	0.00	-7.92	0.00	-6.88	0.00
-9.98	0.00	-8.94	0.00	-7.90	0.00	-6.86	0.00
-9.96	0.00	-8.92	0.00	-7.88	0.00	-6.84	0.00
-9.94	0.00	-8.90	0.00	-7.86	0.00	-6.82	0.00
-9.92	0.00	-8.88	0.00	-7.84	0.00	-6.80	0.00
-9.90	0.00	-8.86	0.00	-7.82	0.00	-6.78	0.67
-9.88	0.00	-8.84	0.00	-7.80	0.00	-6.76	6.52
-9.86	0.00	-8.82	0.00	-7.78	0.00	-6.74	9.19
-9.84	0.00	-8.80	0.00	-7.76	0.00	-6.72	10.86
-9.82	0.00	-8.78	0.00	-7.74	0.00	-6.70	14.19
-9.80	0.00	-8.76	0.00	-7.72	0.00	-6.68	20.64
-9.78	0.00	-8.74	0.00	-7.70	0.00	-6.66	41.94
-9.76	0.00	-8.72	0.00	-7.68	0.00	-6.64	43.62
-9.74	0.00	-8.70	0.00	-7.66	0.00	-6.62	25.41
-9.72	0.00	-8.68	0.00	-7.64	0.00	-6.60	12.86
-9.70	0.00	-8.66	0.00	-7.62	0.00	-6.58	12.69
-9.68	0.00	-8.64	0.00	-7.60	0.00	-6.56	12.42
-9.66	0.00	-8.62	0.00	-7.58	0.00	-6.54	13.22

Table X (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	9.50	-5.48	0.00	-4.44	4.85	-3.40	0.39
-6.50	7.67	-5.46	0.00	-4.42	5.35	-3.38	0.38
-6.48	6.58	-5.44	0.00	-4.40	3.45	-3.36	0.37
-6.46	6.79	-5.42	0.00	-4.38	2.56	-3.34	0.36
-6.44	6.51	-5.40	0.00	-4.36	2.14	-3.32	0.36
-6.42	6.47	-5.38	0.00	-4.34	1.81	-3.30	0.35
-6.40	7.05	-5.36	0.00	-4.32	1.55	-3.28	0.34
-6.38	8.43	-5.34	0.00	-4.30	1.40	-3.26	0.34
-6.36	12.25	-5.32	0.00	-4.28	1.32	-3.24	0.33
-6.34	6.09	-5.30	0.00	-4.26	1.26	-3.22	0.33
-6.32	2.57	-5.28	0.00	-4.24	1.20	-3.20	0.32
-6.30	12.00	-5.26	0.00	-4.22	1.15	-3.18	0.32
-6.28	29.00	-5.24	0.00	-4.20	1.10	-3.16	0.31
-6.26	58.35	-5.22	0.00	-4.18	1.06	-3.14	0.33
-6.24	24.33	-5.20	0.00	-4.16	1.02	-3.12	0.39
-6.22	13.69	-5.18	0.00	-4.14	0.98	-3.10	0.46
-6.20	5.80	-5.16	0.00	-4.12	0.95	-3.08	0.53
-6.18	5.31	-5.14	0.01	-4.10	0.91	-3.06	0.59
-6.16	5.23	-5.12	0.02	-4.08	0.88	-3.04	0.65
-6.14	5.18	-5.10	0.03	-4.06	0.85	-3.02	0.72
-6.12	5.38	-5.08	0.04	-4.04	0.82	-3.00	0.87
-6.10	5.22	-5.06	0.10	-4.02	0.79	-2.98	1.09
-6.08	5.18	-5.04	0.19	-4.00	0.76	-2.96	1.31
-6.06	5.41	-5.02	0.22	-3.98	0.74	-2.94	1.44
-6.04	4.70	-5.00	0.25	-3.96	0.71	-2.92	1.49
-6.02	4.53	-4.98	0.27	-3.94	0.69	-2.90	1.52
-6.00	4.53	-4.96	0.29	-3.92	0.67	-2.88	1.53
-5.98	3.03	-4.94	0.30	-3.90	0.65	-2.86	1.53
-5.96	1.82	-4.92	0.32	-3.88	0.63	-2.84	1.52
-5.94	0.37	-4.90	0.36	-3.86	0.61	-2.82	1.50
-5.92	0.00	-4.88	0.42	-3.84	0.60	-2.80	1.48
-5.90	0.00	-4.86	0.47	-3.82	0.59	-2.78	1.46
-5.88	0.00	-4.84	0.50	-3.80	0.58	-2.76	1.43
-5.86	0.00	-4.82	0.55	-3.78	0.56	-2.74	1.38
-5.84	0.00	-4.80	0.60	-3.76	0.55	-2.72	1.34
-5.82	0.00	-4.78	0.63	-3.74	0.54	-2.70	1.31
-5.80	0.00	-4.76	0.65	-3.72	0.53	-2.68	1.30
-5.78	0.00	-4.74	0.68	-3.70	0.52	-2.66	1.29
-5.76	0.00	-4.72	0.70	-3.68	0.51	-2.64	1.28
-5.74	0.00	-4.70	0.71	-3.66	0.50	-2.62	1.28
-5.72	0.00	-4.68	0.73	-3.64	0.49	-2.60	1.28
-5.70	0.00	-4.66	0.75	-3.62	0.48	-2.58	1.28
-5.68	0.00	-4.64	0.81	-3.60	0.47	-2.56	1.28
-5.66	0.00	-4.62	0.88	-3.58	0.46	-2.54	1.29
-5.64	0.00	-4.60	0.99	-3.56	0.45	-2.52	1.29
-5.62	0.00	-4.58	1.10	-3.54	0.44	-2.50	1.30
-5.60	0.00	-4.56	1.23	-3.52	0.44	-2.48	1.31
-5.58	0.00	-4.54	1.39	-3.50	0.43	-2.46	1.32
-5.56	0.00	-4.52	1.61	-3.48	0.42	-2.44	1.33
-5.54	0.00	-4.50	1.83	-3.46	0.41	-2.42	1.34
-5.52	0.00	-4.48	2.45	-3.44	0.40	-2.40	1.36
-5.50	0.00	-4.46	3.83	-3.42	0.39	-2.38	1.37

Table X (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.39	-1.32	1.83	-0.28	0.53	0.76	0.00
-2.34	1.41	-1.30	1.83	-0.26	0.51	0.78	0.00
-2.32	1.43	-1.28	1.83	-0.24	0.50	0.80	0.00
-2.30	1.46	-1.26	1.83	-0.22	0.47	0.82	0.00
-2.28	1.54	-1.24	1.82	-0.20	0.44	0.84	0.00
-2.26	1.57	-1.22	1.82	-0.18	0.41	0.86	0.00
-2.24	1.61	-1.20	1.82	-0.16	0.37	0.88	0.00
-2.22	1.66	-1.18	1.82	-0.14	0.34	0.90	0.00
-2.20	1.72	-1.16	1.83	-0.12	0.31	0.92	0.00
-2.18	1.78	-1.14	1.85	-0.10	0.26	0.94	0.00
-2.16	1.83	-1.12	1.88	-0.08	0.20	0.96	0.00
-2.14	1.87	-1.10	1.86	-0.06	0.14	0.98	0.00
-2.12	1.90	-1.08	1.83	-0.04	0.07	1.00	0.00
-2.10	1.91	-1.06	1.80	-0.02	0.02	1.02	0.00
-2.08	1.90	-1.04	1.79	0.00	0.00	1.04	0.00
-2.06	1.86	-1.02	1.80	0.02	0.00	1.06	0.00
-2.04	1.81	-1.00	1.82	0.04	0.00	1.08	0.00
-2.02	1.78	-0.98	1.84	0.06	0.00	1.10	0.00
-2.00	1.77	-0.96	1.86	0.08	0.00	1.12	0.00
-1.98	1.80	-0.94	1.87	0.10	0.00	1.14	0.00
-1.96	1.84	-0.92	1.87	0.12	0.00	1.16	0.00
-1.94	1.88	-0.90	1.85	0.14	0.00	1.18	0.00
-1.92	1.92	-0.88	1.87	0.16	0.00	1.20	0.00
-1.90	1.93	-0.86	1.95	0.18	0.00	1.22	0.00
-1.88	1.91	-0.84	1.64	0.20	0.00	1.24	0.00
-1.86	1.89	-0.82	1.52	0.22	0.00	1.26	0.00
-1.84	1.86	-0.80	1.44	0.24	0.00	1.28	0.00
-1.82	1.84	-0.78	1.37	0.26	0.00	1.30	0.00
-1.80	1.82	-0.76	1.31	0.28	0.00	1.32	0.00
-1.78	1.81	-0.74	1.26	0.30	0.00	1.34	0.00
-1.76	1.81	-0.72	1.21	0.32	0.00	1.36	0.00
-1.74	1.82	-0.70	1.17	0.34	0.00	1.38	0.00
-1.72	1.82	-0.68	1.14	0.36	0.00	1.40	0.00
-1.70	1.83	-0.66	1.10	0.38	0.00	1.42	0.00
-1.68	1.85	-0.64	1.07	0.40	0.00	1.44	0.00
-1.66	1.88	-0.62	1.03	0.42	0.00	1.46	0.00
-1.64	1.89	-0.60	1.00	0.44	0.00	1.48	0.00
-1.62	1.88	-0.58	0.96	0.46	0.00	1.50	0.00
-1.60	1.86	-0.56	0.93	0.48	0.00	1.52	0.00
-1.58	1.84	-0.54	0.90	0.50	0.00	1.54	0.00
-1.56	1.82	-0.52	0.87	0.52	0.00	1.56	0.00
-1.54	1.80	-0.50	0.84	0.54	0.00	1.58	0.00
-1.52	1.79	-0.48	0.81	0.56	0.00	1.60	0.00
-1.50	1.79	-0.46	0.79	0.58	0.00	1.62	0.00
-1.48	1.79	-0.44	0.77	0.60	0.00	1.64	0.00
-1.46	1.80	-0.42	0.74	0.62	0.00	1.66	0.00
-1.44	1.81	-0.40	0.70	0.64	0.00	1.68	0.00
-1.42	1.82	-0.38	0.67	0.66	0.00	1.70	0.00
-1.40	1.83	-0.36	0.64	0.68	0.00	1.72	0.00
-1.38	1.83	-0.34	0.61	0.70	0.00	1.74	0.00
-1.36	1.84	-0.32	0.58	0.72	0.00	1.76	0.00
-1.34	1.83	-0.30	0.55	0.74	0.00	1.78	0.00

Table X (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	0.00	2.84	0.03	3.88	0.70	4.92	1.47
1.82	0.00	2.86	0.03	3.90	0.70	4.94	1.46
1.84	0.00	2.88	0.04	3.92	0.68	4.96	1.46
1.86	0.00	2.90	0.04	3.94	0.65	4.98	1.45
1.88	0.00	2.92	0.04	3.96	0.65	5.00	1.43
1.90	0.00	2.94	0.04	3.98	0.66	5.02	1.42
1.92	0.00	2.96	0.04	4.00	0.68	5.04	1.40
1.94	0.00	2.98	0.04	4.02	0.69	5.06	1.38
1.96	0.00	3.00	0.04	4.04	0.71	5.08	1.37
1.98	0.00	3.02	0.05	4.06	0.73	5.10	1.37
2.00	0.00	3.04	0.05	4.08	0.75	5.12	1.37
2.02	0.00	3.06	0.05	4.10	0.77	5.14	1.37
2.04	0.00	3.08	0.05	4.12	0.78	5.16	1.36
2.06	0.00	3.10	0.05	4.14	0.80	5.18	1.34
2.08	0.00	3.12	0.05	4.16	0.82	5.20	1.34
2.10	0.00	3.14	0.06	4.18	0.83	5.22	1.34
2.12	0.00	3.16	0.06	4.20	0.85	5.24	1.31
2.14	0.00	3.18	0.06	4.22	0.87	5.26	1.26
2.16	0.00	3.20	0.06	4.24	0.91	5.28	1.20
2.18	0.00	3.22	0.06	4.26	0.93	5.30	1.15
2.20	0.00	3.24	0.07	4.28	0.95	5.32	1.12
2.22	0.00	3.26	0.07	4.30	0.97	5.34	1.09
2.24	0.00	3.28	0.07	4.32	0.99	5.36	1.08
2.26	0.00	3.30	0.07	4.34	1.01	5.38	1.07
2.28	0.00	3.32	0.08	4.36	1.03	5.40	1.06
2.30	0.00	3.34	0.08	4.38	1.05	5.42	1.05
2.32	0.00	3.36	0.08	4.40	1.07	5.44	1.04
2.34	0.00	3.38	0.08	4.42	1.10	5.46	1.03
2.36	0.00	3.40	0.09	4.44	1.12	5.48	1.02
2.38	0.00	3.42	0.09	4.46	1.14	5.50	1.02
2.40	0.00	3.44	0.09	4.48	1.16	5.52	1.01
2.42	0.00	3.46	0.10	4.50	1.19	5.54	1.01
2.44	0.00	3.48	0.10	4.52	1.21	5.56	1.00
2.46	0.00	3.50	0.10	4.54	1.23	5.58	0.99
2.48	0.01	3.52	0.11	4.56	1.25	5.60	1.04
2.50	0.01	3.54	0.11	4.58	1.28	5.62	1.08
2.52	0.01	3.56	0.12	4.60	1.31	5.64	1.06
2.54	0.01	3.58	0.12	4.62	1.35	5.66	0.99
2.56	0.01	3.60	0.13	4.64	1.45	5.68	0.88
2.58	0.01	3.62	0.13	4.66	1.59	5.70	0.87
2.60	0.01	3.64	0.14	4.68	1.72	5.72	0.85
2.62	0.02	3.66	0.16	4.70	1.86	5.74	0.83
2.64	0.02	3.68	0.18	4.72	1.97	5.76	0.80
2.66	0.02	3.70	0.22	4.74	1.94	5.78	0.77
2.68	0.02	3.72	0.27	4.76	1.90	5.80	0.73
2.70	0.02	3.74	0.34	4.78	1.85	5.82	0.64
2.72	0.02	3.76	0.40	4.80	1.76	5.84	0.62
2.74	0.03	3.78	0.47	4.82	1.67	5.86	0.61
2.76	0.03	3.80	0.53	4.84	1.60	5.88	0.62
2.78	0.03	3.82	0.59	4.86	1.55	5.90	0.64
2.80	0.03	3.84	0.65	4.88	1.51	5.92	0.65
2.82	0.03	3.86	0.70	4.90	1.48	5.94	0.66

Table X (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	0.68	6.98	0.51	8.00	2.30	9.02	0.92
5.98	0.69	7.00	0.48	8.02	2.23	9.04	0.92
6.00	0.71	7.02	0.45	8.04	2.18	9.06	0.92
6.02	0.72	7.04	0.42	8.06	2.15	9.08	0.92
6.04	0.74	7.06	0.40	8.08	2.11	9.10	0.92
6.06	0.76	7.08	0.39	8.10	2.06	9.12	0.91
6.08	0.79	7.10	0.39	8.12	1.98	9.14	0.90
6.10	0.82	7.12	0.39	8.14	1.91	9.16	0.90
6.12	0.86	7.14	0.40	8.16	1.85	9.18	0.89
6.14	0.91	7.16	0.42	8.18	1.82	9.20	0.88
6.16	0.96	7.18	0.43	8.20	1.85	9.22	0.87
6.18	1.02	7.20	0.43	8.22	1.92	9.24	0.86
6.20	1.08	7.22	0.43	8.24	1.84	9.26	0.85
6.22	1.14	7.24	0.43	8.26	1.74	9.28	0.85
6.24	1.20	7.26	0.44	8.28	1.64	9.30	0.84
6.26	1.27	7.28	0.45	8.30	1.54	9.32	0.83
6.28	1.74	7.30	0.50	8.32	1.45	9.34	0.82
6.30	2.15	7.32	0.51	8.34	1.39	9.36	0.81
6.32	1.94	7.34	0.53	8.36	1.35	9.38	0.81
6.34	1.82	7.36	0.55	8.38	1.33	9.40	0.80
6.36	1.76	7.38	0.58	8.40	1.31	9.42	0.80
6.38	1.73	7.40	0.60	8.42	1.30	9.44	0.80
6.40	1.72	7.42	0.63	8.44	1.29	9.46	0.80
6.42	1.75	7.44	0.66	8.46	1.29	9.48	0.81
6.44	1.80	7.46	0.70	8.48	1.27	9.50	0.81
6.46	1.86	7.48	0.73	8.50	1.26	9.52	0.81
6.48	1.89	7.50	0.77	8.52	1.24	9.54	0.82
6.50	1.91	7.52	0.84	8.54	1.22	9.56	0.82
6.52	1.94	7.54	0.95	8.56	1.21	9.58	0.83
6.54	2.00	7.56	1.12	8.58	1.19	9.60	0.83
6.56	2.02	7.58	1.32	8.60	1.18	9.62	0.84
6.58	1.76	7.60	1.50	8.62	1.17	9.64	0.84
6.60	1.74	7.62	1.69	8.64	1.16	9.66	0.84
6.62	1.74	7.64	1.88	8.66	1.16	9.68	0.85
6.64	1.73	7.66	2.06	8.68	1.16	9.70	0.86
6.66	1.73	7.68	2.21	8.70	1.17	9.72	0.87
6.68	1.71	7.70	2.25	8.72	1.18	9.74	0.88
6.70	1.69	7.72	2.25	8.74	1.19	9.76	0.89
6.72	1.67	7.74	2.26	8.76	1.20	9.78	0.90
6.74	1.62	7.76	2.25	8.78	1.22	9.80	0.92
6.76	1.57	7.78	2.23	8.80	1.27	9.82	0.93
6.78	1.46	7.80	2.21	8.82	1.35	9.84	0.96
6.80	1.33	7.82	2.30	8.84	1.46	9.86	1.00
6.82	1.16	7.84	2.37	8.86	1.57	9.88	1.05
6.84	1.01	7.86	2.42	8.88	1.54	9.90	1.10
6.86	0.89	7.88	2.45	8.90	1.45	9.92	1.15
6.88	0.80	7.90	2.50	8.92	1.32	9.94	1.16
6.90	0.71	7.92	2.53	8.94	1.21	9.96	1.14
6.92	0.64	7.94	2.49	8.96	1.13	9.98	1.10
6.94	0.59	7.96	2.44	8.98	1.01	10.00	1.03
6.96	0.54	7.98	2.38	9.00	0.94	10.02	0.94

TABLE XI.

Energy eigenvalues for the first 13 bands of ZnSe. The first column gives the value of $\vec{k}=\frac{4a}{\pi}$ (k_x, k_y, k_z), where a is the lattice constant. Entries in the succeeding columns are the energies in eV, with the zero of energy being the top of the occupied valence bands.

(0 0 0)	-12.67	-7.06	-7.06	-7.06	-6.67	-6.67	0.00	0.00	0.00	1.83	5.86	5.86	5.86
(1 0 0)	-12.64	-7.06	-7.05	-7.05	-6.67	-6.67	-0.42	-0.12	-0.12	2.28	5.64	6.05	6.05
(1 1 0)	-12.60	-7.05	-7.05	-7.04	-6.67	-6.67	-0.85	-0.24	-0.04	2.54	5.72	5.97	6.23
(1 1 1)	-12.57	-7.04	-7.04	-7.04	-6.67	-6.67	-1.22	-0.15	-0.15	2.69	5.87	6.13	6.13
(2 0 0)	-12.53	-7.05	-7.03	-7.03	-6.68	-6.66	-1.19	-0.43	-0.43	3.11	5.15	6.57	6.57
(2 1 0)	-12.50	-7.04	-7.03	-7.02	-6.68	-6.67	-1.53	-0.56	-0.25	3.18	5.34	6.44	6.69
(2 1 1)	-12.47	-7.04	-7.02	-7.02	-6.68	-6.67	-1.85	-0.43	-0.31	3.16	5.57	6.56	6.57
(2 2 0)	-12.40	-7.02	-7.02	-7.01	-6.68	-6.66	-2.13	-0.89	-0.20	3.46	5.68	6.29	6.90
(2 2 1)	-12.37	-7.02	-7.01	-7.00	-6.68	-6.67	-2.43	-0.67	-0.27	3.29	6.01	6.37	6.83
(2 2 2)	-12.29	-7.01	-7.01	-6.96	-6.67	-6.67	-2.97	-0.47	-0.47	3.12	6.58	6.58	6.72
(3 0 0)	-12.37	-7.04	-7.00	-7.00	-6.69	-6.66	-1.99	-0.83	-0.83	3.95	4.59	7.32	7.32
(3 1 0)	-12.34	-7.03	-7.00	-6.99	-6.68	-6.66	-2.24	-0.97	-0.66	3.93	4.81	7.18	7.29
(3 1 1)	-12.31	-7.02	-6.99	-6.98	-6.68	-6.66	-2.50	-0.80	-0.74	3.80	5.11	7.18	7.20
(3 2 0)	-12.26	-7.01	-6.99	-6.97	-6.68	-6.66	-2.73	-1.31	-0.45	3.97	5.41	6.90	7.08
(3 2 1)	-12.23	-7.01	-6.99	-6.95	-6.68	-6.66	-3.00	-1.07	-0.51	3.69	5.74	6.94	7.11
(3 2 2)	-12.16	-7.00	-6.99	-6.91	-6.68	-6.66	-3.51	-0.75	-0.65	3.32	6.28	6.88	7.29
(3 3 0)	-12.13	-6.99	-6.98	-6.92	-6.68	-6.65	-3.24	-1.74	-0.48	4.15	6.07	6.77	6.83
(3 3 1)	-12.11	-6.99	-6.98	-6.90	-6.68	-6.66	-3.51	-1.46	-0.51	3.82	6.31	6.76	7.04
(3 3 2)	-12.05	-6.98	-6.98	-6.84	-6.67	-6.66	-3.99	-0.98	-0.60	3.27	6.60	6.72	7.63
(3 3 3)	-11.97	-6.98	-6.98	-6.76	-6.67	-6.67	-4.45	-0.74	-0.74	2.99	6.70	6.70	8.19
(4 0 0)	-12.16	-7.01	-6.96	-6.96	-6.70	-6.65	-2.75	-1.24	-1.24	4.05	4.53	8.18	8.18
(4 1 0)	-12.14	-7.01	-6.96	-6.95	-6.69	-6.65	-2.93	-1.38	-1.12	4.30	4.53	7.77	8.13
(4 1 1)	-12.12	-7.00	-6.96	-6.93	-6.69	-6.65	-3.12	-1.27	-1.19	4.19	4.83	7.68	7.91
(4 2 0)	-12.07	-6.99	-6.96	-6.91	-6.69	-6.65	-3.30	-1.73	-0.91	4.53	4.98	7.06	7.92
(4 2 1)	-12.06	-6.99	-6.96	-6.89	-6.68	-6.65	-3.52	-1.51	-0.96	4.15	5.41	7.18	7.75
(4 2 2)	-12.00	-6.98	-6.96	-6.84	-6.67	-6.65	-3.96	-1.16	-1.06	3.76	5.93	7.30	7.57
(4 3 0)	-11.97	-6.97	-6.96	-6.84	-6.69	-6.65	-3.70	-2.15	-0.79	4.50	5.91	6.67	7.60
(4 3 1)	-11.96	-6.97	-6.96	-6.82	-6.68	-6.65	-3.94	-1.87	-0.81	4.17	6.02	6.94	7.58
(4 3 2)	-11.93	-6.97	-6.96	-6.76	-6.67	-6.65	-4.39	-1.35	-0.85	3.59	6.24	7.01	7.96
(4 3 3)	-11.88	-6.97	-6.97	-6.69	-6.66	-6.63	-4.78	-0.96	-0.91	3.18	6.49	6.81	8.51
(4 4 0)	-11.86	-6.95	-6.95	-6.76	-6.69	-6.63	-4.05	-2.54	-0.89	4.43	6.54	6.94	7.44
(4 4 1)	-11.85	-6.96	-6.95	-6.74	-6.68	-6.62	-4.29	-2.24	-0.89	4.23	6.22	7.29	7.57
(4 4 2)	-11.84	-6.96	-6.96	-6.70	-6.67	-6.61	-4.70	-1.64	-0.87	3.70	6.22	7.01	8.33
(4 4 3)	-11.83	-6.97	-6.96	-6.67	-6.67	-6.56	-5.03	-1.09	-0.85	3.15	6.49	6.78	8.80
(4 4 4)	-11.83	-6.97	-6.97	-6.66	-6.66	-6.53	-5.15	-0.85	-0.85	2.91	6.70	6.70	8.91
(5 0 0)	-11.94	-6.98	-6.91	-6.91	-6.69	-6.64	-3.46	-1.62	-1.62	3.63	4.47	9.12	9.12
(5 1 0)	-11.93	-6.97	-6.92	-6.90	-6.68	-6.64	-3.56	-1.75	-1.56	3.89	4.57	8.16	9.10

Table XI (Cont'd)

(5 1 1)	-11.91	-6.97	-6.92	-6.88	-6.67	-6.64	-3.68	-1.78	-1.54	3.96	4.79	7.92	8.70
(5 2 0)	-11.88	-6.96	-6.93	-6.85	-6.67	-6.64	-3.80	-2.09	-1.42	4.56	4.86	7.08	9.00
(5 2 1)	-11.87	-6.96	-6.93	-6.84	-6.66	-6.64	-3.96	-1.97	-1.41	4.23	5.31	7.18	8.53
(5 2 2)	-11.84	-6.96	-6.93	-6.79	-6.65	-6.63	-4.31	-1.80	-1.34	4.03	5.78	7.46	7.85
(5 3 0)	-11.81	-6.94	-6.94	-6.78	-6.67	-6.62	-4.07	-2.49	-1.29	4.92	5.57	6.49	8.78
(5 3 1)	-11.81	-6.95	-6.93	-6.77	-6.66	-6.61	-4.27	-2.26	-1.27	4.56	5.69	6.88	8.46
(5 3 2)	-11.80	-6.96	-6.94	-6.73	-6.66	-6.58	-4.64	-1.83	-1.20	4.03	5.89	7.37	8.12
(5 3 3)	-11.80	-6.96	-6.95	-6.70	-6.66	-6.54	-4.94	-1.51	-1.08	3.65	6.10	7.11	8.59
(5 4 0)	-11.74	-6.94	-6.92	-6.73	-6.68	-6.56	-4.32	-2.85	-1.24	4.53	6.42	6.96	8.48
(5 4 1)	-11.74	-6.95	-6.93	-6.72	-6.67	-6.55	-4.52	-2.56	-1.21	4.43	6.04	7.39	8.35
(5 4 2)	-11.76	-6.96	-6.94	-6.70	-6.67	-6.52	-4.85	-1.98	-1.13	4.04	5.90	7.35	8.56
(5 4 3)	-11.79	-6.96	-6.95	-6.68	-6.66	-6.52	-5.05	-1.42	-1.00	3.51	6.17	6.99	8.84
(5 5 0)	-11.66	-6.94	-6.90	-6.72	-6.68	-6.48	-4.48	-3.09	-1.36	4.17	6.67	8.09	8.34
(5 5 1)	-11.68	-6.94	-6.91	-6.72	-6.67	-6.48	-4.65	-2.80	-1.32	4.16	6.38	8.08	8.26
(5 5 2)	-11.72	-6.95	-6.93	-6.71	-6.66	-6.49	-4.87	-2.19	-1.23	4.05	6.02	7.57	8.47
(6 0 0)	-11.74	-6.94	-6.87	-6.87	-6.63	-6.63	-4.07	-1.91	-1.91	3.36	4.09	9.87	10.07
(6 1 0)	-11.74	-6.94	-6.88	-6.86	-6.63	-6.62	-4.11	-2.04	-1.91	3.61	4.26	8.86	10.08
(6 1 1)	-11.73	-6.94	-6.88	-6.85	-6.63	-6.61	-4.16	-2.19	-1.82	3.68	4.55	8.59	9.53
(6 2 0)	-11.71	-6.93	-6.89	-6.82	-6.64	-6.58	-4.21	-2.35	-1.90	4.28	4.73	7.62	10.09
(6 2 1)	-11.71	-6.94	-6.89	-6.81	-6.64	-6.57	-4.31	-2.40	-1.77	4.03	5.20	7.66	9.35
(6 2 2)	-11.70	-6.94	-6.90	-6.77	-6.65	-6.53	-4.52	-2.43	-1.57	3.96	5.83	7.70	8.50
(6 3 0)	-11.68	-6.92	-6.91	-6.77	-6.66	-6.52	-4.35	-2.71	-1.83	5.10	5.37	6.64	10.01
(6 3 1)	-11.68	-6.93	-6.91	-6.76	-6.66	-6.51	-4.48	-2.61	-1.73	4.65	5.71	6.94	9.35
(6 3 2)	-11.70	-6.95	-6.91	-6.73	-6.66	-6.49	-4.72	-2.40	-1.47	4.23	5.94	7.59	8.51
(6 3 3)	-11.72	-6.95	-6.93	-6.71	-6.66	-6.49	-4.87	-2.19	-1.23	4.05	6.02	7.57	8.47
(6 4 0)	-11.64	-6.93	-6.90	-6.73	-6.67	-6.46	-4.48	-3.01	-1.74	4.85	6.18	6.91	9.35
(6 4 1)	-11.65	-6.93	-6.91	-6.72	-6.67	-6.46	-4.60	-2.80	-1.67	4.81	5.81	7.32	9.29
(6 4 2)	-11.69	-6.95	-6.92	-6.71	-6.67	-6.47	-4.80	-2.39	-1.45	4.51	5.65	7.63	8.82
(6 5 0)	-11.60	-6.93	-6.88	-6.74	-6.67	-6.42	-4.55	-3.16	-1.69	4.15	6.40	8.09	9.01
(6 5 1)	-11.63	-6.93	-6.89	-6.74	-6.66	-6.44	-4.64	-2.92	-1.63	4.19	6.26	7.81	9.03
(6 6 0)	-11.57	-6.93	-6.87	-6.77	-6.65	-6.41	-4.59	-3.11	-1.77	3.75	5.81	9.14	9.47
(7 0 0)	-11.60	-6.93	-6.84	-6.84	-6.62	-6.54	-4.52	-2.10	-2.10	3.21	3.76	10.55	10.93
(7 1 0)	-11.60	-6.92	-6.85	-6.83	-6.63	-6.52	-4.52	-2.21	-2.15	3.45	3.97	9.74	10.85
(7 1 1)	-11.60	-6.92	-6.85	-6.82	-6.63	-6.51	-4.52	-2.46	-2.00	3.49	4.32	9.49	10.31
(7 2 0)	-11.59	-6.92	-6.87	-6.80	-6.64	-6.48	-4.51	-2.48	-2.25	4.10	4.55	8.48	10.26
(7 2 1)	-11.60	-6.92	-6.87	-6.79	-6.64	-6.47	-4.54	-2.72	-1.98	3.85	5.06	8.50	9.94
(7 2 2)	-11.61	-6.93	-6.87	-6.77	-6.65	-6.48	-4.59	-2.91	-1.72	3.81	5.83	8.43	9.14
(7 3 0)	-11.58	-6.91	-6.88	-6.76	-6.66	-6.43	-4.52	-2.78	-2.31	4.97	5.32	7.29	9.24
(7 3 1)	-11.59	-6.92	-6.88	-6.75	-6.66	-6.43	-4.56	-2.89	-2.05	4.54	5.81	7.43	9.27
(7 3 2)	-11.63	-6.93	-6.89	-6.74	-6.66	-6.44	-4.64	-2.92	-1.63	4.19	6.26	7.81	9.03
(7 4 0)	-11.57	-6.91	-6.89	-6.73	-6.68	-6.40	-4.53	-2.98	-2.27	5.27	5.97	7.03	8.37
(7 4 1)	-11.59	-6.92	-6.89	-6.73	-6.68	-6.41	-4.57	-2.94	-2.09	5.19	5.79	7.17	8.73
(7 5 0)	-11.56	-6.92	-6.87	-6.75	-6.66	-6.40	-4.57	-3.01	-2.16	4.49	5.82	8.07	8.53
(8 0 0)	-11.55	-6.92	-6.83	-6.83	-6.62	-6.49	-4.69	-2.16	-2.16	3.18	3.64	10.85	11.35
(8 1 0)	-11.55	-6.92	-6.84	-6.82	-6.63	-6.47	-4.67	-2.26	-2.24	3.41	3.87	10.38	10.75
(8 1 1)	-11.55	-6.92	-6.84	-6.82	-6.63	-6.46	-4.66	-2.55	-2.06	3.43	4.24	10.11	10.69
(8 2 0)	-11.55	-6.91	-6.86	-6.79	-6.64	-6.43	-4.63	-2.48	-2.42	4.04	4.48	9.42	9.44
(8 2 1)	-11.56	-6.92	-6.86	-6.79	-6.64	-6.42	-4.62	-2.85	-2.05	3.78	5.01	9.36	9.49
(8 2 2)	-11.57	-6.93	-6.87	-6.77	-6.65	-6.41	-4.59	-3.11	-1.77	3.75	5.81	9.14	9.47
(8 3 0)	-11.55	-6.91	-6.87	-6.76	-6.66	-6.39	-4.57	-2.70	-2.58	4.91	5.30	8.09	8.33
(8 3 1)	-11.56	-6.92	-6.87	-6.75	-6.66	-6.40	-4.57	-3.01	-2.16	4.49	5.82	8.07	8.53
(8 4 0)	-11.55	-6.91	-6.88	-6.73	-6.68	-6.37	-4.55	-2.80	-2.65	5.52	5.84	7.33	7.70

TABLE XII.

Total density of electronic states, N(E), for ZnSe. The energy E is in eV, and N(E) is in eV^{-1} for both spins.

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-13.00	0.00	-12.42	0.52	-11.84	3.48	-11.26	0.00
-12.98	0.00	-12.40	0.55	-11.82	3.47	-11.24	0.00
-12.96	0.00	-12.38	0.59	-11.80	3.58	-11.22	0.00
-12.94	0.00	-12.36	0.63	-11.78	3.85	-11.20	0.00
-12.92	0.00	-12.34	0.66	-11.76	3.48	-11.18	0.00
-12.90	0.00	-12.32	0.69	-11.74	3.52	-11.16	0.00
-12.88	0.00	-12.30	0.72	-11.72	3.65	-11.14	0.00
-12.86	0.00	-12.28	0.76	-11.70	4.15	-11.12	0.00
-12.84	0.00	-12.26	0.80	-11.68	4.33	-11.10	0.00
-12.82	0.00	-12.24	0.84	-11.66	4.22	-11.08	0.00
-12.80	0.00	-12.22	0.88	-11.64	4.06	-11.06	0.00
-12.78	0.00	-12.20	0.92	-11.62	4.04	-11.04	0.00
-12.76	0.00	-12.18	0.97	-11.60	4.97	-11.02	0.00
-12.74	0.00	-12.16	1.02	-11.58	6.33	-11.00	0.00
-12.72	0.00	-12.14	1.07	-11.56	3.75	-10.98	0.00
-12.70	0.00	-12.12	1.12	-11.54	0.00	-10.96	0.00
-12.68	0.00	-12.10	1.18	-11.52	0.00	-10.94	0.00
-12.66	0.02	-12.08	1.25	-11.50	0.00	-10.92	0.00
-12.64	0.10	-12.06	1.32	-11.48	0.00	-10.90	0.00
-12.62	0.20	-12.04	1.40	-11.46	0.00	-10.88	0.00
-12.60	0.23	-12.02	1.48	-11.44	0.00	-10.86	0.00
-12.58	0.25	-12.00	1.57	-11.42	0.00	-10.84	0.00
-12.56	0.29	-11.98	1.67	-11.40	0.00	-10.82	0.00
-12.54	0.34	-11.96	1.77	-11.38	0.00	-10.80	0.00
-12.52	0.38	-11.94	1.90	-11.36	0.00	-10.78	0.00
-12.50	0.41	-11.92	2.06	-11.34	0.00	-10.76	0.00
-12.48	0.43	-11.90	2.25	-11.32	0.00	-10.74	0.00
-12.46	0.46	-11.88	2.50	-11.30	0.00	-10.72	0.00
-12.44	0.49	-11.86	2.88	-11.28	0.00	-10.70	0.00

Table XII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-10.68	0.00	-9.64	0.00	-8.60	0.00	-7.56	0.00
-10.66	0.00	-9.62	0.00	-8.58	0.00	-7.54	0.00
-10.64	0.00	-9.60	0.00	-8.56	0.00	-7.52	0.00
-10.62	0.00	-9.58	0.00	-8.54	0.00	-7.50	0.00
-10.60	0.00	-9.56	0.00	-8.52	0.00	-7.48	0.00
-10.58	0.00	-9.54	0.00	-8.50	0.00	-7.46	0.00
-10.56	0.00	-9.52	0.00	-8.48	0.00	-7.44	0.00
-10.54	0.00	-9.50	0.00	-8.46	0.00	-7.42	0.00
-10.52	0.00	-9.48	0.00	-8.44	0.00	-7.40	0.00
-10.50	0.00	-9.46	0.00	-8.42	0.00	-7.38	0.00
-10.48	0.00	-9.44	0.00	-8.40	0.00	-7.36	0.00
-10.46	0.00	-9.42	0.00	-8.38	0.00	-7.34	0.00
-10.44	0.00	-9.40	0.00	-8.36	0.00	-7.32	0.00
-10.42	0.00	-9.38	0.00	-8.34	0.00	-7.30	0.00
-10.40	0.00	-9.36	0.00	-8.32	0.00	-7.28	0.00
-10.38	0.00	-9.34	0.00	-8.30	0.00	-7.26	0.00
-10.36	0.00	-9.32	0.00	-8.28	0.00	-7.24	0.00
-10.34	0.00	-9.30	0.00	-8.26	0.00	-7.22	0.00
-10.32	0.00	-9.28	0.00	-8.24	0.00	-7.20	0.00
-10.30	0.00	-9.26	0.00	-8.22	0.00	-7.18	0.00
-10.28	0.00	-9.24	0.00	-8.20	0.00	-7.16	0.00
-10.26	0.00	-9.22	0.00	-8.18	0.00	-7.14	0.00
-10.24	0.00	-9.20	0.00	-8.16	0.00	-7.12	0.00
-10.22	0.00	-9.18	0.00	-8.14	0.00	-7.10	0.00
-10.20	0.00	-9.16	0.00	-8.12	0.00	-7.08	0.00
-10.18	0.00	-9.14	0.00	-8.10	0.00	-7.06	0.00
-10.16	0.00	-9.12	0.00	-8.08	0.00	-7.04	6.79
-10.14	0.00	-9.10	0.00	-8.06	0.00	-7.02	10.48
-10.12	0.00	-9.08	0.00	-8.04	0.00	-7.00	15.04
-10.10	0.00	-9.06	0.00	-8.02	0.00	-6.98	23.64
-10.08	0.00	-9.04	0.00	-8.00	0.00	-6.96	43.36
-10.06	0.00	-9.02	0.00	-7.98	0.00	-6.94	42.29
-10.04	0.00	-9.00	0.00	-7.96	0.00	-6.92	49.29
-10.02	0.00	-8.98	0.00	-7.94	0.00	-6.90	18.25
-10.00	0.00	-8.96	0.00	-7.92	0.00	-6.88	16.77
-9.98	0.00	-8.94	0.00	-7.90	0.00	-6.86	10.61
-9.96	0.00	-8.92	0.00	-7.88	0.00	-6.84	7.85
-9.94	0.00	-8.90	0.00	-7.86	0.00	-6.82	7.45
-9.92	0.00	-8.88	0.00	-7.84	0.00	-6.80	8.06
-9.90	0.00	-8.86	0.00	-7.82	0.00	-6.78	8.59
-9.88	0.00	-8.84	0.00	-7.80	0.00	-6.76	10.19
-9.86	0.00	-8.82	0.00	-7.78	0.00	-6.74	15.40
-9.84	0.00	-8.80	0.00	-7.76	0.00	-6.72	9.90
-9.82	0.00	-8.78	0.00	-7.74	0.00	-6.70	4.36
-9.80	0.00	-8.76	0.00	-7.72	0.00	-6.68	54.25
-9.78	0.00	-8.74	0.00	-7.70	0.00	-6.66	63.34
-9.76	0.00	-8.72	0.00	-7.68	0.00	-6.64	26.17
-9.74	0.00	-8.70	0.00	-7.66	0.00	-6.62	7.32
-9.72	0.00	-8.68	0.00	-7.64	0.00	-6.60	5.93
-9.70	0.00	-8.66	0.00	-7.62	0.00	-6.58	5.84
-9.68	0.00	-8.64	0.00	-7.60	0.00	-6.56	6.12
-9.66	0.00	-8.62	0.00	-7.58	0.00	-6.54	6.22

Table XII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-6.52	5.87	-5.48	0.00	-4.44	1.74	-3.40	0.34
-6.50	6.28	-5.46	0.00	-4.42	1.62	-3.38	0.33
-6.48	6.09	-5.44	0.00	-4.40	1.51	-3.36	0.33
-6.46	5.58	-5.42	0.00	-4.38	1.41	-3.34	0.32
-6.44	6.13	-5.40	0.00	-4.36	1.33	-3.32	0.32
-6.42	4.04	-5.38	0.00	-4.34	1.26	-3.30	0.31
-6.40	1.88	-5.36	0.00	-4.32	1.20	-3.28	0.31
-6.38	0.07	-5.34	0.00	-4.30	1.14	-3.26	0.30
-6.36	0.00	-5.32	0.00	-4.28	1.08	-3.24	0.29
-6.34	0.00	-5.30	0.00	-4.26	1.03	-3.22	0.29
-6.32	0.00	-5.28	0.00	-4.24	0.99	-3.20	0.28
-6.30	0.00	-5.26	0.00	-4.22	0.94	-3.18	0.28
-6.28	0.00	-5.24	0.00	-4.20	0.90	-3.16	0.28
-6.26	0.00	-5.22	0.00	-4.18	0.87	-3.14	0.29
-6.24	0.00	-5.20	0.00	-4.16	0.83	-3.12	0.35
-6.22	0.00	-5.18	0.00	-4.14	0.80	-3.10	0.45
-6.20	0.00	-5.16	0.00	-4.12	0.77	-3.08	0.52
-6.18	0.00	-5.14	0.00	-4.10	0.74	-3.06	0.58
-6.16	0.00	-5.12	0.00	-4.08	0.71	-3.04	0.65
-6.14	0.00	-5.10	0.01	-4.06	0.70	-3.02	0.73
-6.12	0.00	-5.08	0.02	-4.04	0.68	-3.00	0.90
-6.10	0.00	-5.06	0.04	-4.02	0.66	-2.98	1.15
-6.08	0.00	-5.04	0.08	-4.00	0.65	-2.96	1.41
-6.06	0.00	-5.02	0.22	-3.98	0.63	-2.94	1.52
-6.04	0.00	-5.00	0.27	-3.96	0.62	-2.92	1.56
-6.02	0.00	-4.98	0.30	-3.94	0.60	-2.90	1.58
-6.00	0.00	-4.96	0.33	-3.92	0.59	-2.88	1.58
-5.98	0.00	-4.94	0.35	-3.90	0.58	-2.86	1.57
-5.96	0.00	-4.92	0.37	-3.88	0.56	-2.84	1.55
-5.94	0.00	-4.90	0.42	-3.86	0.55	-2.82	1.54
-5.92	0.00	-4.88	0.48	-3.84	0.54	-2.80	1.52
-5.90	0.00	-4.86	0.55	-3.82	0.52	-2.78	1.47
-5.88	0.00	-4.84	0.61	-3.80	0.51	-2.76	1.40
-5.86	0.00	-4.82	0.67	-3.78	0.50	-2.74	1.35
-5.84	0.00	-4.80	0.73	-3.76	0.49	-2.72	1.32
-5.82	0.00	-4.78	0.77	-3.74	0.48	-2.70	1.30
-5.80	0.00	-4.76	0.81	-3.72	0.47	-2.68	1.29
-5.78	0.00	-4.74	0.84	-3.70	0.46	-2.66	1.28
-5.76	0.00	-4.72	0.86	-3.68	0.45	-2.64	1.28
-5.74	0.00	-4.70	0.89	-3.66	0.44	-2.62	1.27
-5.72	0.00	-4.68	1.00	-3.64	0.43	-2.60	1.27
-5.70	0.00	-4.66	1.28	-3.62	0.42	-2.58	1.28
-5.68	0.00	-4.64	1.63	-3.60	0.41	-2.56	1.28
-5.66	0.00	-4.62	2.15	-3.58	0.40	-2.54	1.28
-5.64	0.00	-4.60	2.93	-3.56	0.39	-2.52	1.29
-5.62	0.00	-4.58	4.35	-3.54	0.38	-2.50	1.30
-5.60	0.00	-4.56	6.38	-3.52	0.38	-2.48	1.30
-5.58	0.00	-4.54	6.38	-3.50	0.37	-2.46	1.31
-5.56	0.00	-4.52	3.20	-3.48	0.36	-2.44	1.32
-5.54	0.00	-4.50	2.31	-3.46	0.36	-2.42	1.34
-5.52	0.00	-4.48	2.04	-3.44	0.35	-2.40	1.35
-5.50	0.00	-4.46	1.88	-3.42	0.34	-2.38	1.36

Table XII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
-2.36	1.37	-1.32	1.82	-0.28	0.49	0.76	0.00
-2.34	1.38	-1.30	1.82	-0.26	0.48	0.78	0.00
-2.32	1.40	-1.28	1.81	-0.24	0.46	0.80	0.00
-2.30	1.42	-1.26	1.81	-0.22	0.43	0.82	0.00
-2.28	1.49	-1.24	1.80	-0.20	0.40	0.84	0.00
-2.26	1.55	-1.22	1.80	-0.18	0.37	0.86	0.00
-2.24	1.58	-1.20	1.79	-0.16	0.34	0.88	0.00
-2.22	1.62	-1.18	1.80	-0.14	0.31	0.90	0.00
-2.20	1.67	-1.16	1.81	-0.12	0.27	0.92	0.00
-2.18	1.72	-1.14	1.84	-0.10	0.23	0.94	0.00
-2.16	1.79	-1.12	1.84	-0.08	0.17	0.96	0.00
-2.14	1.85	-1.10	1.81	-0.06	0.12	0.98	0.00
-2.12	1.90	-1.08	1.77	-0.04	0.06	1.00	0.00
-2.10	1.92	-1.06	1.76	-0.02	0.01	1.02	0.00
-2.08	1.94	-1.04	1.76	0.00	0.00	1.04	0.00
-2.06	1.93	-1.02	1.77	0.02	0.00	1.06	0.00
-2.04	1.89	-1.00	1.80	0.04	0.00	1.08	0.00
-2.02	1.84	-0.98	1.82	0.06	0.00	1.10	0.00
-2.00	1.81	-0.96	1.83	0.08	0.00	1.12	0.00
-1.98	1.82	-0.94	1.82	0.10	0.00	1.14	0.00
-1.96	1.86	-0.92	1.81	0.12	0.00	1.16	0.00
-1.94	1.90	-0.90	1.80	0.14	0.00	1.18	0.00
-1.92	1.95	-0.88	1.85	0.16	0.00	1.20	0.00
-1.90	1.97	-0.86	1.94	0.18	0.00	1.22	0.00
-1.88	1.94	-0.84	1.51	0.20	0.00	1.24	0.00
-1.86	1.91	-0.82	1.43	0.22	0.00	1.26	0.00
-1.84	1.89	-0.80	1.36	0.24	0.00	1.28	0.00
-1.82	1.86	-0.78	1.30	0.26	0.00	1.30	0.00
-1.80	1.84	-0.76	1.25	0.28	0.00	1.32	0.00
-1.78	1.83	-0.74	1.20	0.30	0.00	1.34	0.00
-1.76	1.83	-0.72	1.16	0.32	0.00	1.36	0.00
-1.74	1.83	-0.70	1.12	0.34	0.00	1.38	0.00
-1.72	1.84	-0.68	1.09	0.36	0.00	1.40	0.00
-1.70	1.85	-0.66	1.05	0.38	0.00	1.42	0.00
-1.68	1.88	-0.64	1.01	0.40	0.00	1.44	0.00
-1.66	1.90	-0.62	0.97	0.42	0.00	1.46	0.00
-1.64	1.89	-0.60	0.94	0.44	0.00	1.48	0.00
-1.62	1.88	-0.58	0.90	0.46	0.00	1.50	0.00
-1.60	1.86	-0.56	0.87	0.48	0.00	1.52	0.00
-1.58	1.84	-0.54	0.84	0.50	0.00	1.54	0.00
-1.56	1.81	-0.52	0.81	0.52	0.00	1.56	0.00
-1.54	1.80	-0.50	0.78	0.54	0.00	1.58	0.00
-1.52	1.80	-0.48	0.76	0.56	0.00	1.60	0.00
-1.50	1.79	-0.46	0.74	0.58	0.00	1.62	0.00
-1.48	1.79	-0.44	0.71	0.60	0.00	1.64	0.00
-1.46	1.80	-0.42	0.67	0.62	0.00	1.66	0.00
-1.44	1.81	-0.40	0.64	0.64	0.00	1.68	0.00
-1.42	1.82	-0.38	0.61	0.66	0.00	1.70	0.00
-1.40	1.82	-0.36	0.58	0.68	0.00	1.72	0.00
-1.38	1.83	-0.34	0.56	0.70	0.00	1.74	0.00
-1.36	1.83	-0.32	0.53	0.72	0.00	1.76	0.00
-1.34	1.82	-0.30	0.51	0.74	0.00	1.78	0.00

Table XII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
1.80	0.00	2.84	0.07	3.88	1.39	4.92	0.91
1.82	0.00	2.86	0.07	3.90	1.43	4.94	0.89
1.84	0.00	2.88	0.08	3.92	1.48	4.96	0.87
1.86	0.00	2.90	0.08	3.94	1.53	4.98	0.86
1.88	0.00	2.92	0.08	3.96	1.57	5.00	0.84
1.90	0.00	2.94	0.09	3.98	1.66	5.02	0.84
1.92	0.00	2.96	0.10	4.00	1.76	5.04	0.83
1.94	0.00	2.98	0.12	4.02	1.87	5.06	0.83
1.96	0.00	3.00	0.14	4.04	2.07	5.08	0.83
1.98	0.00	3.02	0.17	4.06	2.15	5.10	0.83
2.00	0.00	3.04	0.20	4.08	2.18	5.12	0.84
2.02	0.00	3.06	0.23	4.10	2.20	5.14	0.84
2.04	0.00	3.08	0.26	4.12	2.19	5.16	0.83
2.06	0.00	3.10	0.29	4.14	2.17	5.18	0.82
2.08	0.01	3.12	0.32	4.16	2.12	5.20	0.80
2.10	0.01	3.14	0.37	4.18	2.07	5.22	0.78
2.12	0.01	3.16	0.39	4.20	2.00	5.24	0.76
2.14	0.01	3.18	0.43	4.22	1.89	5.26	0.74
2.16	0.01	3.20	0.47	4.24	1.76	5.28	0.72
2.18	0.01	3.22	0.51	4.26	1.67	5.30	0.73
2.20	0.01	3.24	0.55	4.28	1.61	5.32	0.73
2.22	0.01	3.26	0.58	4.30	1.57	5.34	0.74
2.24	0.01	3.28	0.61	4.32	1.54	5.36	0.75
2.26	0.02	3.30	0.58	4.34	1.51	5.38	0.77
2.28	0.02	3.32	0.58	4.36	1.48	5.40	0.79
2.30	0.02	3.34	0.62	4.38	1.45	5.42	0.81
2.32	0.02	3.36	0.65	4.40	1.42	5.44	0.84
2.34	0.02	3.38	0.69	4.42	1.39	5.46	0.86
2.36	0.02	3.40	0.72	4.44	1.38	5.48	0.89
2.38	0.02	3.42	0.75	4.46	1.36	5.50	0.92
2.40	0.03	3.44	0.76	4.48	1.31	5.52	0.96
2.42	0.03	3.46	0.77	4.50	1.23	5.54	0.99
2.44	0.03	3.48	0.78	4.52	1.18	5.56	1.03
2.46	0.03	3.50	0.80	4.54	1.24	5.58	1.06
2.48	0.03	3.52	0.82	4.56	1.31	5.60	1.10
2.50	0.03	3.54	0.85	4.58	1.30	5.62	1.15
2.52	0.04	3.56	0.87	4.60	1.27	5.64	1.20
2.54	0.04	3.58	0.89	4.62	1.24	5.66	1.26
2.56	0.04	3.60	0.91	4.64	1.21	5.68	1.44
2.58	0.04	3.62	0.94	4.66	1.18	5.70	1.72
2.60	0.04	3.64	0.96	4.68	1.15	5.72	1.79
2.62	0.04	3.66	0.98	4.70	1.12	5.74	1.85
2.64	0.05	3.68	1.01	4.72	1.09	5.76	1.93
2.66	0.05	3.70	1.04	4.74	1.07	5.78	2.02
2.68	0.05	3.72	1.07	4.76	1.04	5.80	1.96
2.70	0.05	3.74	1.10	4.78	1.02	5.82	1.70
2.72	0.05	3.76	1.14	4.80	0.99	5.84	1.71
2.74	0.06	3.78	1.18	4.82	0.97	5.86	1.72
2.76	0.06	3.80	1.21	4.84	0.96	5.88	1.74
2.78	0.06	3.82	1.25	4.86	0.96	5.90	1.77
2.80	0.06	3.84	1.29	4.88	0.95	5.92	1.85
2.82	0.07	3.86	1.34	4.90	0.93	5.94	1.84

Table XII (Cont'd)

E	N(E)	E	N(E)	E	N(E)	E	N(E)
5.96	1.80	6.98	2.12	8.00	0.97	9.02	0.82
5.98	1.77	7.00	2.13	8.02	0.97	9.04	0.84
6.00	1.74	7.02	2.11	8.04	0.97	9.06	0.85
6.02	1.72	7.04	2.15	8.06	0.97	9.08	0.86
6.04	1.69	7.06	2.18	8.08	0.98	9.10	0.87
6.06	1.64	7.08	2.16	8.10	0.98	9.12	0.89
6.08	1.59	7.10	2.12	8.12	0.97	9.14	0.90
6.10	1.55	7.12	2.11	8.14	0.97	9.16	0.91
6.12	1.50	7.14	2.10	8.16	0.97	9.18	0.93
6.14	1.45	7.16	2.08	8.18	0.97	9.20	0.94
6.16	1.39	7.18	2.05	8.20	0.97	9.22	0.95
6.18	1.34	7.20	2.00	8.22	0.98	9.24	0.96
6.20	1.29	7.22	1.99	8.24	0.98	9.26	0.98
6.22	1.24	7.24	1.98	8.26	0.99	9.28	0.97
6.24	1.17	7.26	1.96	8.28	1.01	9.30	0.85
6.26	1.11	7.28	1.93	8.30	1.03	9.32	0.71
6.28	1.06	7.30	1.90	8.32	1.05	9.34	0.61
6.30	1.02	7.32	1.87	8.34	1.09	9.36	0.59
6.32	0.99	7.34	1.84	8.36	1.13	9.38	0.58
6.34	0.97	7.36	1.81	8.38	1.19	9.40	0.57
6.36	0.94	7.38	1.79	8.40	1.25	9.42	0.56
6.38	0.91	7.40	1.78	8.42	1.31	9.44	0.55
6.40	0.88	7.42	1.76	8.44	1.38	9.46	0.54
6.42	0.85	7.44	1.74	8.46	1.45	9.48	0.53
6.44	0.82	7.46	1.72	8.48	1.51	9.50	0.53
6.46	0.80	7.48	1.68	8.50	1.40	9.52	0.52
6.48	0.77	7.50	1.63	8.52	1.30	9.54	0.51
6.50	0.80	7.52	1.57	8.54	1.25	9.56	0.50
6.52	0.79	7.54	1.49	8.56	1.20	9.58	0.49
6.54	0.77	7.56	1.40	8.58	1.15	9.60	0.49
6.56	0.75	7.58	1.29	8.60	1.13	9.62	0.48
6.58	0.73	7.60	1.20	8.62	1.10	9.64	0.47
6.60	0.69	7.62	1.15	8.64	1.08	9.66	0.46
6.62	0.66	7.64	1.14	8.66	1.06	9.68	0.45
6.64	0.64	7.66	1.13	8.68	1.04	9.70	0.45
6.66	0.64	7.68	1.13	8.70	1.02	9.72	0.44
6.68	0.66	7.70	1.12	8.72	1.00	9.74	0.43
6.70	0.70	7.72	1.10	8.74	0.98	9.76	0.42
6.72	0.91	7.74	1.09	8.76	0.97	9.78	0.41
6.74	1.15	7.76	1.08	8.78	0.96	9.80	0.41
6.76	1.33	7.78	1.08	8.80	0.94	9.82	0.41
6.78	1.46	7.80	1.07	8.82	0.86	9.84	0.41
6.80	1.41	7.82	1.06	8.84	0.81	9.86	0.42
6.82	1.48	7.84	1.05	8.86	0.80	9.88	0.44
6.84	1.58	7.86	1.03	8.88	0.80	9.90	0.46
6.86	1.67	7.88	1.01	8.90	0.80	9.92	0.50
6.88	1.76	7.90	1.00	8.92	0.80	9.94	0.54
6.90	1.85	7.92	0.99	8.94	0.80	9.96	0.60
6.92	1.93	7.94	0.99	8.96	0.81	9.98	0.65
6.94	2.01	7.96	0.98	8.98	0.81	10.00	0.68
6.96	2.07	7.98	0.98	9.00	0.82	10.02	0.71

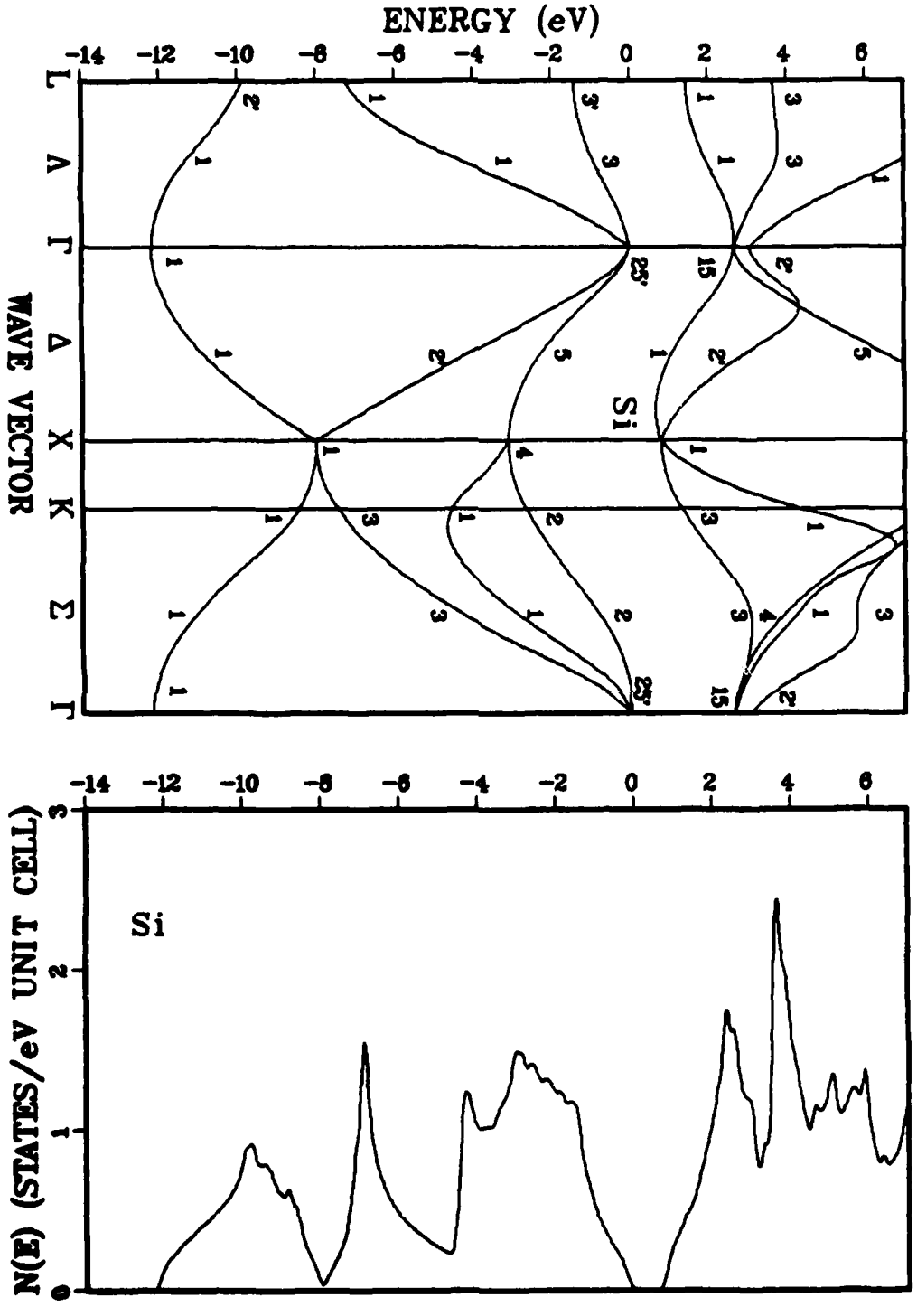

Fig. 1 — Self-consistent energy bands and density of states of Si

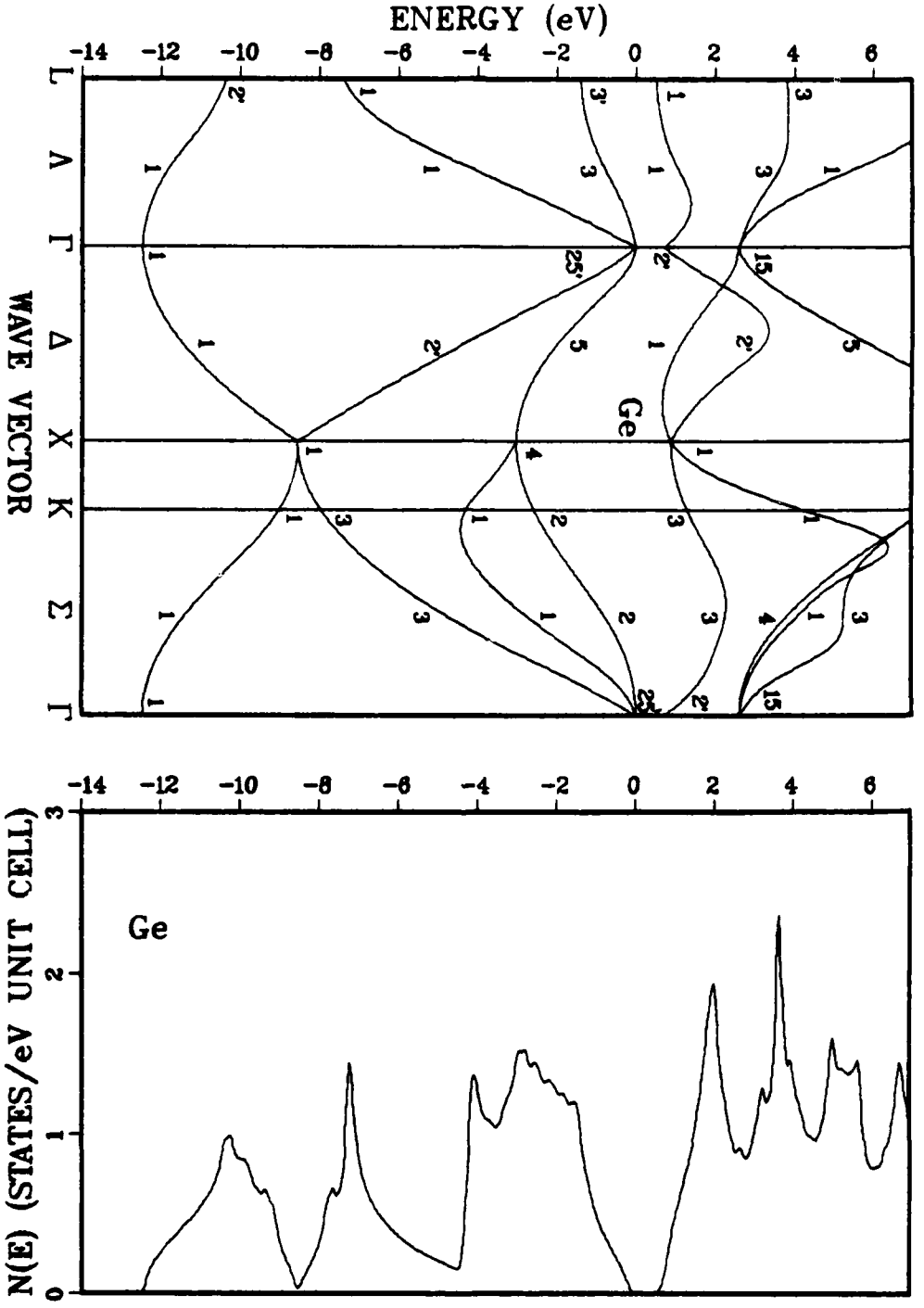

Fig. 2 — Self-consistent energy bands and density of states of Ge

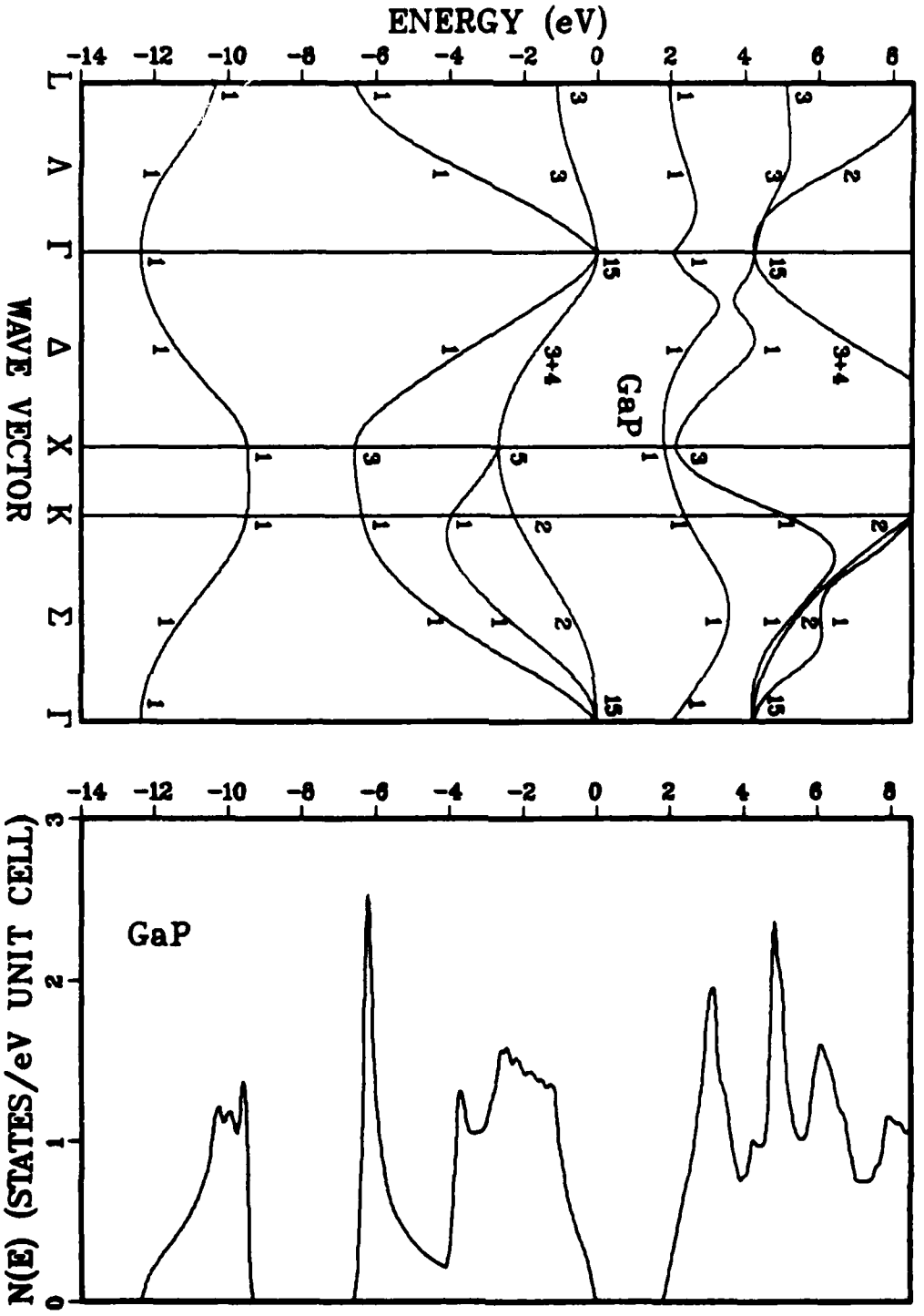

Fig. 3 — Self-consistent energy bands and density of states of GaP

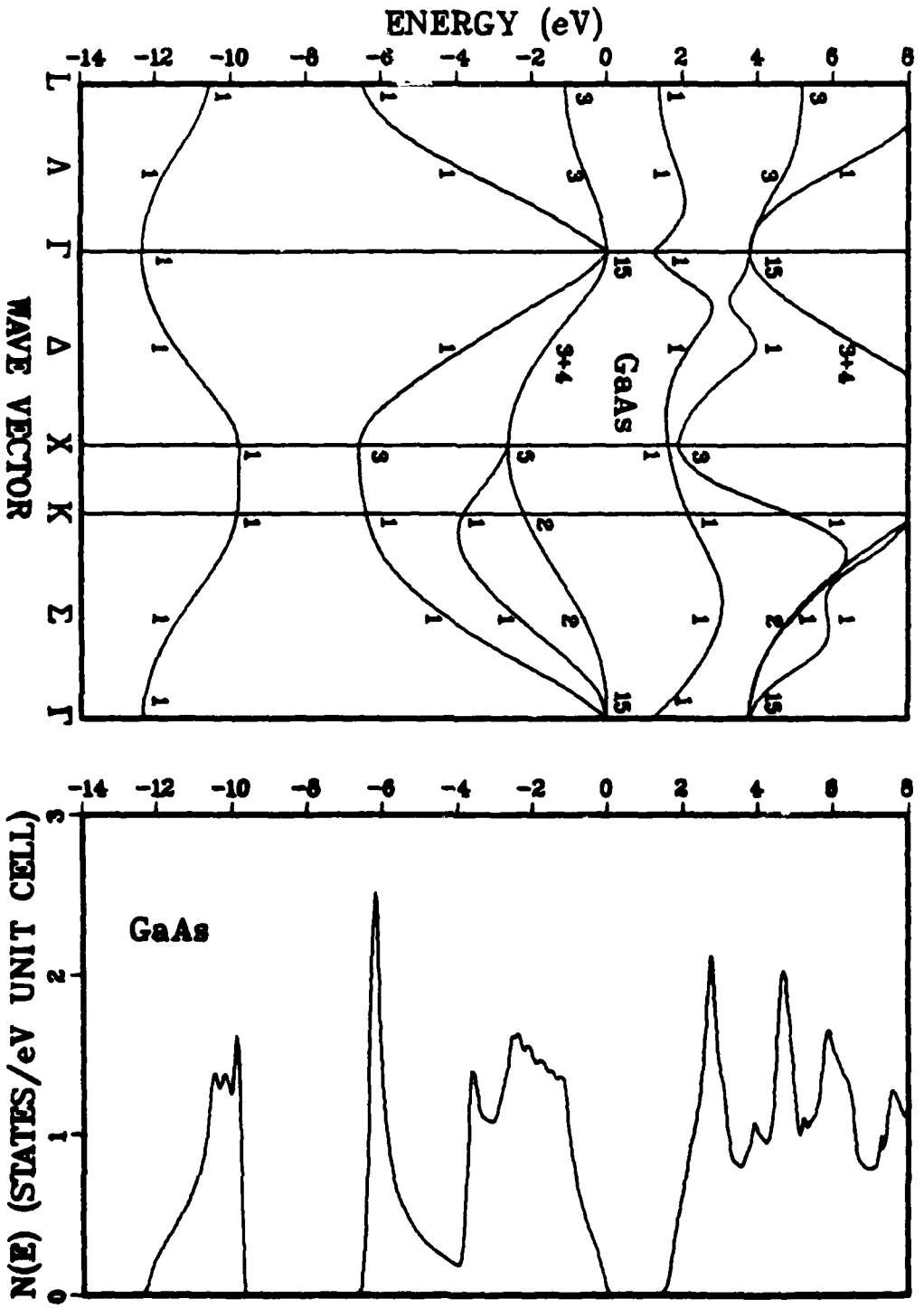

Fig. 4 — Self-consistent energy bands and density of states of GaAs

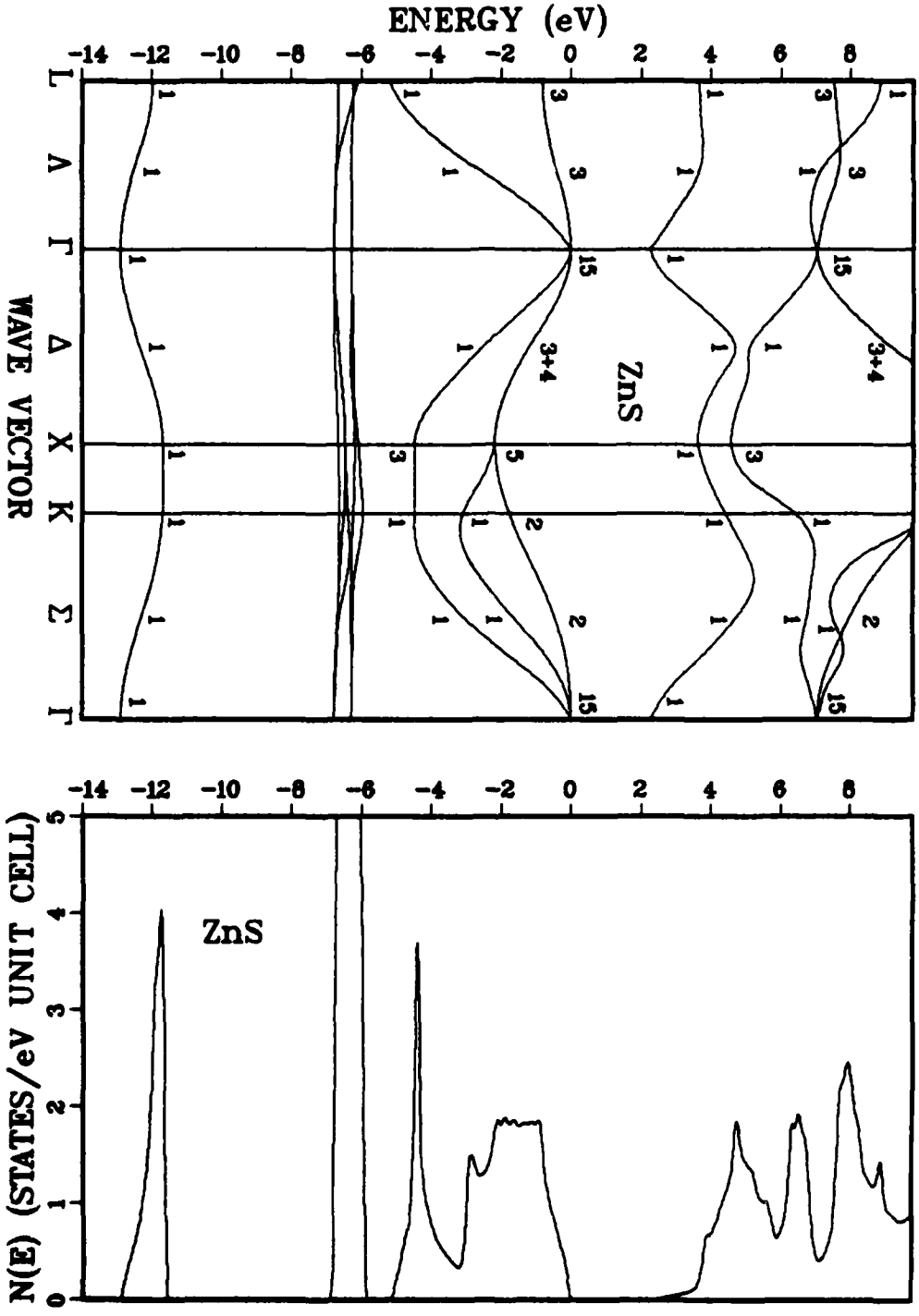

Fig. 5 — Self-consistent energy bands and density of states of ZnS

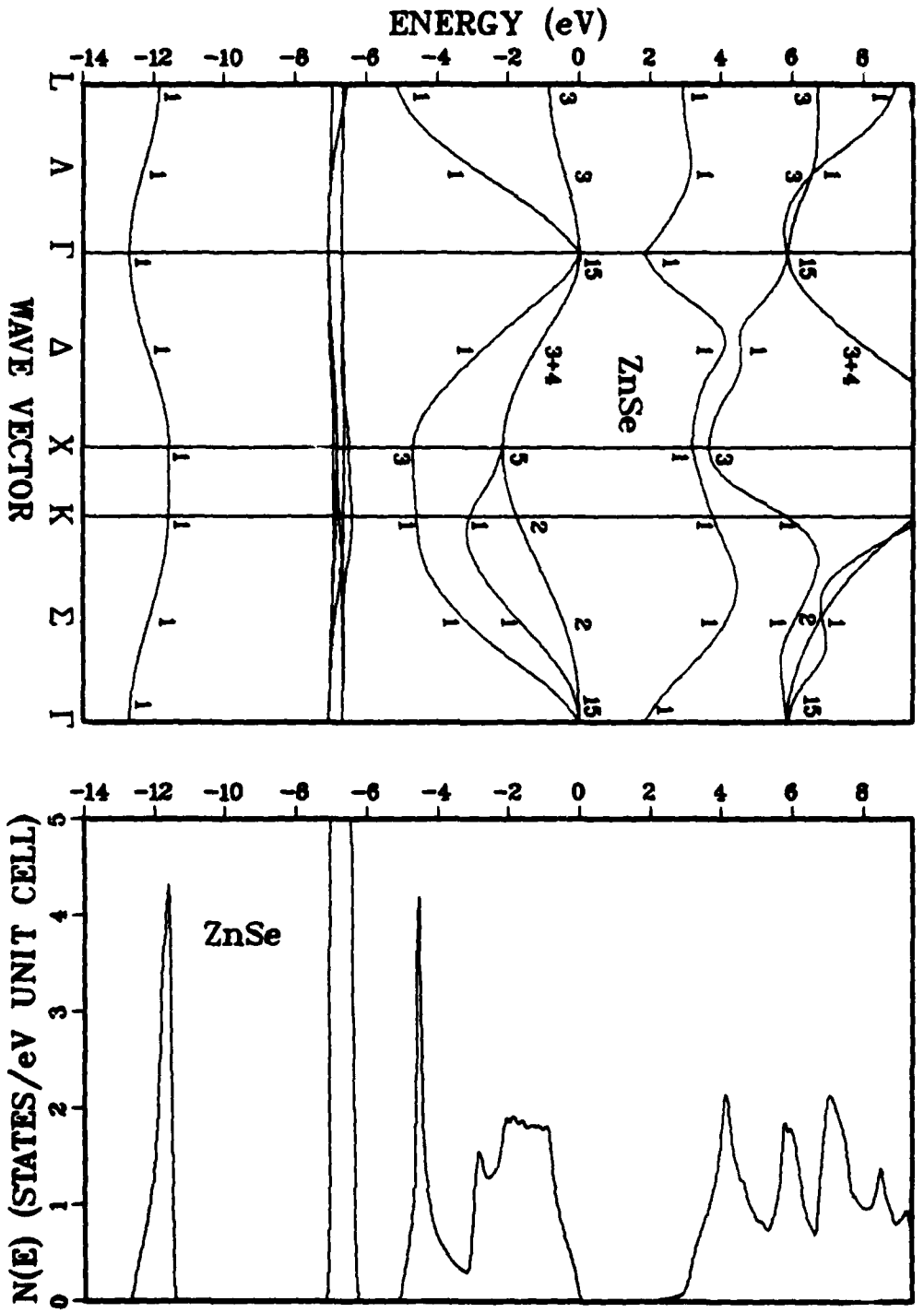

Fig. 6 — Self-consistent energy bands and density of states of ZnSe


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